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Food Safety and Inspection Service

Meat and Poultry Inspection



Report of the Secretary of Agriculture to the U.S. Congress

Preface

he Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture (USDA) administers a comprehensive system of inspection laws to ensure that meat and poultry products moving in interstate commerce for use as human food are safe, wholesome, and accurately labeled. FSIS strives to provide this vital consumer protection service at the least possible cost to the American taxpayer.

This report summarizes initiatives and accomplishments, domestic and export inspection activities, and foreign program review and import reinspection activities during the past year.

Information about domestic and export inspection is presented on a fiscal year basis to complement the congressional budget process. Information on review of foreign inspection systems and import reinspection is presented on a calendar year basis, as required by law.

The first section of this report describes the organizational structure and responsibilities of FSIS.

The second section describes steps FSIS has taken to improve the efficiency and effectiveness of the inspection program and to better protect the public health.

The third section statistically summarizes domestic and export inspection activities for fiscal year 1991 (October 1, 1990, through September 30, 1991).

The fourth section statistically summarizes FSIS review of foreign inspection systems and import reinspection activities for calendar year 1991.

This annual report to the Committee on Agriculture of the U.S. House of Representatives and to the Committee on Agriculture, Nutrition, and Forestry of the U.S. Senate is submitted as required by sections 301 (c) (4) and 20 (e) of the Federal Meat Inspection Act, as amended (21 U. S. C. 661 and 21 U. S. C. 620); and sections 27 and 5 (c) (4) of the Poultry Products Inspection Act, as amended (21 U. S. C. 470 and 21 U. S. C. 454).

Questions about this report or about FSIS may be directed to the Food Safety and Inspection Service, U.S. Department of Agriculture, Washington, DC 20250.

Foreign Countries and Plants Certified to Export Meat and Poultry to the United States is presented to Congress as an addendum to this publication. It is available from FSIS upon request.

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Organization and Responsibilities of the Food Safety and Inspection Service

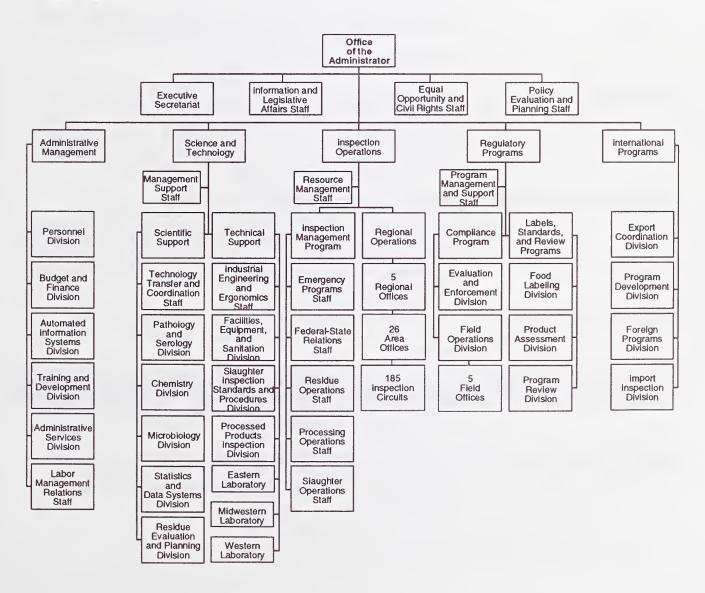


he Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture (USDA) administers a comprehensive system of inspection laws to ensure that meat and poultry products moving in interstate and foreign commerce for use as human food are safe, wholesome, and accurately labeled.

The organizational structure of FSIS is shown in figure 1-1. Of the agency's five major programs, four are directly involved in inspection and supportive activities: Inspection Operations, Science and Technology, International Programs, and Regulatory Programs. The fifth program, Administrative Management, oversees the functions of budget and finance, personnel administration, information resource management, training and development, and labor-management relations. Each program is headed by a Deputy Administrator who reports to the Administrator.

Exhibit 1-1

Organizational Structure



FSIS carries out USDA's responsibilities under the Federal Meat Inspection Act and the Poultry Products Inspection Act. These laws protect consumers by ensuring that meat and poultry products are wholesome, unadulterated, and properly marked, labeled, and packaged. The laws also protect packers by ensuring that no one gains an unfair economic advantage by marketing unwholesome or misbranded products.

FSIS cooperates with other agencies within USDA, such as the Agricultural Research Service, the Agricultural Marketing Service, the Animal and Plant Health Inspection Service, the Extension Service, the Economic Research Service, and the National Agricultural Statistics Service. FSIS also maintains relationships with other Federal agencies with food safety responsibilities, notably the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA).

Inspection Operations

Inspection Operations (IO) oversees the inspection of all meat and poultry plants in the United States that move product across State lines, administers the Federal-State cooperative inspection program, oversees residue monitoring operations in plants, and coordinates FSIS actions for handling emergency contamination problems.

Within IO, there are two major programs--Inspection Management and Regional Operations--as well as the Resource Management Staff.

Inspection Management Program

Emergency Programs Staff

The Emergency Programs Staff coordinates FSIS actions in response to residue, microbiological, and other contamination problems. When appropriate, this staff seeks voluntary recall by firms whose products are suspected of being adulterated or misbranded. This staff operates the Meatborne Hazard Control Center, which investigates reports of potential health hazards in meat and poultry products.

Federal-State Relations Staff

The Federal-State Relations Staff ensures that State inspection programs enforce requirements at least equal to those of Federal inspection. State-inspected plants may sell their products only within the State. This staff also gives technical assistance to plants operating under the Talmadge-Aiken Act, which established cooperative agreements permitting State employees to carry out inspection in federally inspected plants.

Residue Operations Staff

The Residue Operations Staff directs the agency's inplant residue monitoring programs and oversees product sampling for residue testing.

Processing Operations Staff

The Processing Operations Staff develops, coordinates, and implements a broad range of activities designed to ensure the uniform interpretation and application, nationwide, of procedures and regulations governing the inspection of processed meat and poultry products.

Slaughter Operations Staff

The Slaughter Operations Staff develops, coordinates, and implements a broad range of activities designed to ensure that the slaughter of red meat animals and poultry is conducted properly and uniformly nationwide.

Resource Management Staff

The Resource Management Staff plans and reviews the allocation of IO's financial and human resources. The staff also coordinates the development of automated systems to facilitate both inspection and resource management.

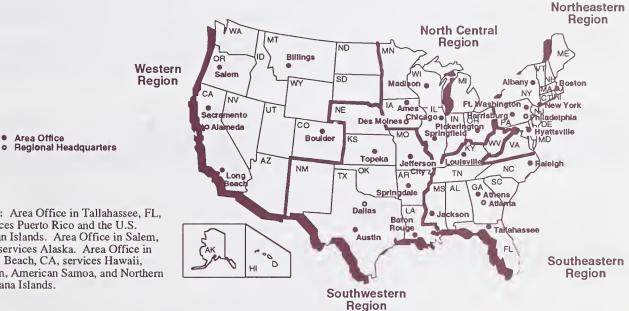
Regional Operations

Inspection activities are carried out by a network of five regional offices, 26 area offices, and 185 inspection circuits. Each region is managed by a regional director who reports to the Assistant Deputy Administrator, Regional Operations. As shown in figure 1-2, there are five or six area offices within each region.

Exhibit 1-2

Inspection Operations Regions and Area Offices

Each area office is managed by an area supervisor who reports to a regional director. Within each area are several inspection circuits, each managed by a circuit supervisor. Circuit supervisors oversee the inspectors-in-charge of the plants within their circuits.



Note: Area Office in Tallahassee, FL, services Puerto Rico and the U.S. Virgin Islands. Area Office in Salem, OR, services Alaska. Area Office in Long Beach, CA, services Hawaii, Guam, American Samoa, and Northern Mariana Islands.

Science and Technology

The Science and Technology Program provides scientific and technical guidance to the agency's inspection programs. The primary objectives of the Science and Technology Program are to develop and enhance the scientific basis for the agency's inspection programs, and to refine and modernize meat and poultry inspection systems, standards, and procedures. The services Science and Technology provides are designed to keep FSIS abreast of technological and scientific developments; ensure that inspection systems and procedures make efficient and effective use of available technology and science; and ensure that meat and poultry products are safe from disease, harmful chemicals, and toxins.

In carrying out its responsibilities, Science and Technology cooperates with other Federal agencies such as FDA, EPA, and the Centers for Disease Control; and with State and local health authorities. It develops and maintains close ties with national and international scientific communities to keep abreast of scientific and technological advances and to open new avenues for exchanging scientific information.

Within the Science and Technology Program, services are divided between two groups--Scientific Support and Technical Support.

Scientific Support

Technology Transfer and Coordination Staff

The Technology Transfer and Coordination Staff acquires, analyzes, and disseminates, within FSIS, scientific, technical, and industrial information pertinent to FSIS programs and the meat and poultry industry.

The staff evaluates rapid/onsite testing systems for use by FSIS, develops and implements the agency's plan for regulating products of biotechnology, and coordinates inspection program needs with the development of technologies.

Pathology and Serology Division

The Pathology and Serology Division develops the pathology and serology programs that support meat and poultry inspection. It provides laboratory services, studies infectious agents associated with food, and develops serological tests for infectious and toxic agents in meat and poultry products.

Chemistry Division

The Chemistry Division develops and improves practical analytical procedures for detecting adulterants and chemical residues in meat and poultry products. This division directs the performance of highly complex chemical analyses in field laboratories, coordinates an accredited laboratory program, and monitors chemistry field service laboratories to ensure the quality and integrity of analytical results. In addition, the division represents FSIS when evaluating analytical procedures submitted to FDA for new animal drug applications.

Microbiology Division

The Microbiology Division provides technical support to the FSIS meat and poultry inspection program and advises other Federal, State, and local agencies. This division develops economical and efficient analytical screening methods for use in laboratories, in plants, and on farms. It also plans and maintains a microbiological monitoring and surveillance program, and carries out special investigations into the safety and quality of products and processes.

Statistics and Data Systems Division

The Statistics and Data Systems Division provides mathematical and statistical support for the inspection program. This division assists in designing, summarizing, and interpreting data developed within the agency; and advises other staffs on the validity and application of statistical conclusions.

Residue Evaluation and Planning Division

The Residue Evaluation and Planning Division plans FSIS activities to control illegal residues of drugs and other chemicals in meat and poultry products. This division develops an annual plan for sampling and testing domestic and imported meat and poultry products for residues. It also plans residue avoidance programs involving producers and federally inspected plants. The division compiles, evaluates, and publishes annual data from the National Residue Program.

Technical Support

Industrial Engineering and Ergonomics Staff

The Industrial Engineering and Ergonomics Staff develops work measurement standards and determines staffing needs for inspection procedures. The staff also studies procedures and workplace design and recommends improvements to maintain effectiveness while enhancing human comfort in task performance.

Facilities, Equipment, and Sanitation Division

The Facilities, Equipment, and Sanitation Division develops standards for plant facilities, equipment, and sanitation programs to help ensure sanitary and wholesome products. The division also reviews and approves drawings of and specifications for meat and poultry facilities and equipment before they can be used in federally inspected plants.

Slaughter Inspection Standards and Procedures Division The Slaughter Inspection Standards and Procedures Division develops regulations and standards for use in plants slaughtering meat animals and poultry. This division also develops, tests, and helps implement procedures for the ante-mortem and post-mortem inspection of animals.

Processed Products Inspection Division The Processed Products Inspection Division establishes industry operating requirements and inspection procedures to ensure that processed meat and poultry products are safe, wholesome, and unadulterated.

Technical Support Laboratories The FSIS Technical Support Laboratories provide analytical services, methods development, and scientific support for FSIS activities. The laboratories are located in Athens, GA (Eastern Laboratory); St. Louis, MO (Midwestern Laboratory); and Alameda, CA (Western Laboratory). FSIS augments the analytical capacity of these laboratories by contracting with accredited non-Federal laboratories.

International Programs

International Programs (IP) carries out requirements of the Federal meat and poultry inspection laws to ensure the wholesomeness of imported meat and poultry products. IP reviews foreign inspection systems to ensure that they are equal to the U.S. system, reinspects imported meat and poultry products entering U.S. commerce, represents U.S. interests throughout the world to minimize regulatory impediments to trade in meat and poultry products, and coordinates the inspection and certification of meat and poultry products for export.

IP handles liaison activities with other Federal agencies involved in international policy development and with industry representatives involved in domestic and international trade of meat and poultry products.

Foreign Programs Division

The Foreign Programs Division ensures that meat and poultry imports have been produced under inspection systems equivalent to that of the United States. This is accomplished by regularly evaluating the effectiveness of each eligible country's inspection system controls in the following risk areas: disease, residues, contamination, processing, and economic fraud. The frequency of the reviews is determined by past performance on system reviews and product reinspection results.

Import Inspection Division

The Import Inspection Division ensures that imported meat and poultry products are properly certified and meet U.S. standards when

presented at the port of entry for reinspection. A computer-assisted system guides the sampling of imported products for reinspection, and the data are used to determine subsequent sampling of products from a particular country and plant. The data also supplement information developed by the Foreign Programs Division to evaluate foreign inspection systems. A product that does not meet U.S. requirements is refused entry into this country. The product may be re-exported, destroyed, or in some cases, converted to animal food.

Program Development Division

The Program Development Division provides technical guidance and analytical support for IP. This division conducts policy studies, coordinates planning functions, designs and tests new procedures, and develops issuances and regulations to implement current policy. It also manages information resources and data systems operations for IP and oversees the operation, development, and maintenance of the Automated Import Information System and other computer-assisted systems. The division coordinates the review and evaluation of new foreign country applications for eligibility to export product to the United States.

Export Coordination Division

The Export Coordination Division facilitates the export of U.S. meat and poultry products. This division maintains liaison with foreign inspection programs in more than 70 nations. Division officials meet with foreign government officials about foreign country requirements that differ from those of the United States. The division also assists the U.S. meat and poultry industry in exporting to foreign markets by helping to resolve potential differences in the interpretation of requirements. It plans and coordinates reviews of U.S. plants by foreign officials.

Regulatory Programs

Regulatory Programs directs compliance activities; reviews and approves labels for federally inspected domestic and imported meat and poultry products; evaluates and sets standards for food ingredients, additives, and compounds used to prepare and package meat and poultry products; and conducts systematic onsite reviews of FSIS program operations.

Compliance Program

Evaluation and Enforcement Division

The Evaluation and Enforcement Division evaluates investigative cases and coordinates application of administrative, civil, or criminal legal actions with the USDA Office of the General Counsel and the Department of Justice. This division also operates information collection, analysis, and reporting systems for the entire Compliance Program.

Field Operations Division

The Field Operations Division investigates violations of the inspection laws; controls violative products through detentions, civil seizures, and voluntary recalls; and helps ensure that appropriate criminal, administrative, and civil sanctions are carried out. This division also provides regulatory control over businesses engaged in transporting, storing, and distributing meat and poultry products after those products leave federally inspected establishments.

Labels, Standards, and Review Programs

Food Labeling Division The Food Labeling Division develops rules for the labeling of meat and poultry products and reviews labels of federally inspected domestic and imported meat and poultry products to ensure the labels are accurate.

Product Assessment Division

The Product Assessment Division develops formal product standards of identity and composition and determines if ingredients are safe and appropriate for the products in which they are used. This division also provides scientific evaluation, planning, and guidance related to nutrition and product safety. This division evaluates the chemical safety of packaging materials and chemical compounds.

Program Review Division

The Program Review Division provides an overview of inspection effectiveness by conducting systematic, onsite reviews of domestic meat and poultry plants and facilities where imported meat and poultry are reinspected; conducts special reviews as requested; and prepares summary reports for the agency.

Administrative Management

The Administrative Management program provides management services for FSIS budget and finance activities, personnel administration, labor management relations, information resources management, training, procurement, contracting, and property management. The Administrative Management program includes the Automated Information Systems Division, Training and Development Division, Personnel Division, Budget and Finance Division, Administrative Services Division, and Labor Management Relations Staff.

Automated Information Systems Division The Automated Information Systems Division is responsible for the oversight and coordination of automated information resource management (IRM) activities for FSIS. The division plans and forecasts FSIS information system needs, acts as adviser on computer system networks, and ensures that appropriate policies are followed in the development and operation of such systems. The division also manages the FSIS Computing Facility.

Training and Development Division The Training and Development Division plans and implements technical and supervisory training activities for FSIS, and manages the Donald L. Houston Center for Meat and Poultry Sciences at Texas A&M University, in College Station, TX. The division advises management on training programs and policies needed to support the agency's long-term goals.

Personnel Division

The Personnel Division assists FSIS managers and program leaders in position management and classification, salary and wage administration, recruitment, safety and occupational health matters, employee development, and employee relations. The division also assists in developing organizational structures and conducting reviews of how existing structures are performing.

Budget and Finance Division

In guiding and directing the agency's budget and finance activities, the Budget and Finance Division performs forecasting, planning, and evaluation activities. This division is also responsible for accounting systems and procedures, assistance on travel and other fiscal services, and budget and finance oversight of State inspection programs.

Administrative Services Division

The Administrative Services Division is responsible for FSIS real and personal property management; procurement and contracting; processing of service agreements; and coordination of the formatting, printing, and distribution of directives. The division is also responsible for records management, forms management, printing and mailing functions, and management of postage costs.

Labor Management Relations Staff

The Labor Management Relations Staff serves as liaison between FSIS management, union officials, employee organizations, and third parties under Title VII of the Civil Service Reform Act. The staff handles negotiations, disputes, and grievances, and formulates the overall labor management policies and program for FSIS.

Units in the Office of the Administrator

Policy Evaluation and Planning Staff

The Policy Evaluation and Planning Staff facilitates the development and documentation of FSIS policy and regulations, and coordinates agency planning. This staff conducts analytical and evaluative studies and reviews for the Administrator and for individual program offices. The staff also supports the agency's implementation of Total Quality Management and coordinates FSIS emergency preparedness functions.

Information and Legislative Affairs Staff The Information and Legislative Affairs Staff communicates with the public, Congress, other Government agencies, the media, and FSIS personnel about FSIS policies, programs, and activities. The staff directs a comprehensive public information and education program on issues such as food safety and labeling. The staff also develops speeches and testimony for agency officials.

The staff operates the toll-free Meat and Poultry Hotline (1-800-535-4555; (202) 720-3333 in the Washington, DC, metropolitan area). It also develops and distributes written and audiovisual materials for a variety of audiences and serves as congressional liaison for the agency.

Executive Secretariat

The Executive Secretariat staff carries out certain information and administrative assignments for the agency. The office is responsible for responding to requests under the Freedom of Information Act and Privacy Act; responding to consumer, congressional, and industry correspondence and written requests for information; and carrying out special projects. In addition, Executive Secretariat staff members have oversight responsibility for U.S. participation in the Codex Alimentarius Commission and manage and direct the National Advisory Committee on Microbiological Criteria for Foods and the National Advisory Committee on Meat and Poultry Inspection.

Equal Opportunity and Civil Rights Staff

The Equal Opportunity and Civil Rights Staff provides support for administration of Titles VI and VII of the Civil Rights Act of 1964 and other applicable laws and regulations. The staff plans program initiatives, evaluates employment activities, mediates the resolution of complaints, and conducts training and program reviews.



II

Initiatives and Accomplishments

T

he Food Safety and Inspection Service (FSIS) has a long, proud history of protecting the public health. Over the past 15 years, the agency has carried out a comprehensive plan to improve the scientific basis of meat and poultry inspection.

FSIS continues to maintain the most intensive food inspection system in the world. It examines new technologies and research and, wherever possible, takes steps to incorporate useful findings into its public health protection program.

In 1990, FSIS developed a strategy to guide agency activities through this decade. This strategy includes the following eight areas of emphasis:

- 1) Food labeling reform;
- 2) Hazard Analysis and Critical Control Point (HACCP) System;
- 3) Reduction of microbiological hazards;
- 4) Residue control;
- 5) Science-based international food regulation (Codex Alimentarius);
- 6) Public information and education;
- 7) Total Quality Management; and
- 8) Workforce diversity.

These areas of emphasis aimed at enhancing meat and poultry inspection and strengthening programs of importance to consumers, provide the basis for a discussion of FSIS initiatives and accomplishments over the past year.

Labeling Reform

Nutrition Labeling

The Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture (USDA) and the Food and Drug Administration (FDA) of the U.S. Department of Health and Human Services (DHHS), in a cooperative effort, issued proposals in November 1991 to require nutrition labeling of virtually all foods. They proposed one set of requirements for all foods. The USDA/DHHS plan for nutrition labeling reform represents the greatest change in labeling in 50 years.

FSIS has long encouraged voluntary nutrition labeling. Until now, nutrition labeling has been voluntary for meat and poultry products except when a manufacturer makes a nutrition-related claim.

The FSIS and FDA proposals, open to public comment through February 25, 1992, would require mandatory nutrition labeling of most processed foods--from chicken noodle soup to peanut butter. Both agencies plan to publish final rules in 1992, with an effective date in 1993. In addition, FDA finalized and FSIS proposed a voluntary nutrition labeling program for raw foods.

Mandatory Program. FSIS nutrition labeling proposals for meat and poultry parallel those of FDA. Under the FSIS proposal, most processed products, such as chili and hot dogs, would require nutrition labeling by 1993. Labels on these products would declare information about calories, calories from total fat, total fat, saturated fat, cholesterol, total carbohydrates, complex carbohydrates, sugars, dietary fiber, protein, sodium, vitamin A, vitamin C, calcium, and iron.

Under the FSIS proposal, processed meat and poultry products sold in small packages (less than 1/2 ounce net weight) would not have to carry nutrition labeling if nutrition labeling information were made available through pamphlets or posters. Wholesale foods not sold directly to consumers but shipped to manufacturers for further processing would be exempt from mandatory nutrition labeling.

FSIS and FDA also proposed several "descriptors" that food companies could use to describe levels of nutrients such as fat, cholesterol, sodium, calories, sugars, and fiber and the specific requirements manufactures must meet when using descriptors. Consumers would be assured that nutrient content claims are accurate and consistent for all products that carry them.

FSIS proposed two unique descriptors for meat and poultry products. "Extra lean" products would have to have less than 4.9 grams of fat (of which less than 1.8 grams could be saturated fat) and less than 94.5 milligrams of cholesterol per serving (and per 100 grams). "Lean" products would have to have less than 10.5 grams of fat (of which less than 3.5 grams could be saturated fat) and less than 94.5 milligrams of cholesterol per serving (and per 100 grams).

The "lean" and "extra lean" descriptors would enable consumers to compare fat profiles of meat and poultry products that have less fat than similar products in the marketplace, even though they don't meet the requirements for "low fat."

Voluntary Program. FSIS also proposed voluntary nutrition labeling for raw, single-ingredient meat and poultry products such as chicken breasts and beef roast. The FSIS proposal is consistent with FDA's final rule for voluntary nutrition labeling for fresh produce and raw fish. Both FDA and FSIS plan to mandate nutrition labeling for products with voluntary nutrition labeling if the marketplace is not responsive within the next few years.

The FDA and FSIS nutrition labeling proposals represented the culmination of years of cooperative work. In 1989, the Agencies jointly sponsored a study by the National Academy of Sciences (NAS) to develop options for improving food labeling. The NAS report was published in 1990, just before Congress passed the 1990 Nutrition Labeling and Education Act (NLEA) requiring FDA to develop nutrition labeling guidelines for foods other than meat and poultry (The NLEA did not apply to meat or poultry products.). USDA Secretary Edward Madigan placed renewed emphasis on nutrition labeling, and FSIS issued an Advance Notice of Proposed Rulemaking on nutrition labeling of meat and poultry on April 2, 1991, and received 200 responses. The agency also participated in an April 1991 FDA public meeting on serving size. Together, these public comments helped provide the basis for the proposal.

Disclosure of Flavorings on Labels On September 3, 1991, a new FSIS rule became effective requiring most flavoring compounds to be listed by common or usual name on meat and poultry product labels; for example, "hydrolyzed vegetable protein" rather than "flavorings." The rule was published in March 1990. Some protein-containing materials derived from livestock, poultry, eggs, milk, plants or yeast could previously be listed simply as "flavorings."

On June 21, 1991, FDA proposed a related rule that would require labels of foods containing hydrolyzed proteins to identify the protein source; for

example, "hydrolyzed soy protein" instead of "hydrolyzed vegetable protein." FDA also plans to require glutamates—such as monosodium glutamate (MSG)—that may be components in hydrolyzed soy protein to be declared on product labels. The change is expected in mid-1992. No changes will be needed to keep FSIS regulations consistent with FDA labeling policy.

FSIS believes the labeling changes will better protect the public health and serve the consumer's right to know. Some people may have allergic reactions to these substances. Others may wish to avoid certain ingredients because of health, dietary or religious preferences.

Low-fat Hamburger

On May 10, 1991, FSIS issued a policy memo on labeling requirements for low-fat products that may be substituted for ground beef or hamburger. Products with no more than 10 percent fat by weight, with some of the fat replaced by adding nonmeat, nonfat ingredients such as water and carrageenan, would need descriptive labels—for example, "Low Fat Ground Beef with a X% Solution of ..." or "Low Fat Hamburger, Water, and Carrageenan Product."

The product labels must list: serving size, number of servings per container (if appropriate), total calories, calories from fat, protein, carbohydrates, total fat, saturated fat, and sodium. Before the label can be used, manufacturers must have FSIS-approved nutrition labeling verification procedures in place. If percentage labeling is included as part of the product name (for example, "Low Fat Ground Beef with a X% Solution of ..."), a partial quality control program for the addition of solutions must be approved before the label can be used.

FSIS believes the policy is consistent with its objective of permitting market innovations to meet consumer demands, while ensuring that labels are accurate and contain enough nutrition information to help consumers in making comparative nutritional judgments.

Net Weight Rule

FSIS' new net weight regulations for meat and poultry have put to rest 10 years of debate over how to determine net weight and will ensure fair and uniform requirements.

Net weight is defined as the weight of a product, not including its packaging. Although the net weight of individual meat or poultry packages may vary slightly, Federal regulations require that the average weight of each package in a lot equal or exceed the declared net weight on the label.

Most portions of the FSIS November 30, 1990, net weight regulation became effective January 2, 1992. However, the specific requirements for ensuring scale accuracy become effective March 2, 1992. The extension allows industry more time to implement all requirements of the National Institute of Science and Technology (NIST) Handbook 44, which specifies procedures and requirements for accurate weighing devices.

The regulation allows State and local inspectors to use either "dry tare" or "wet tare" testing methods. USDA will use a dry tare system. Under a "dry tare" system, all liquids within the package are considered part of the product and are included in the net weight. Under a "wet tare" system, all liquids within the package are considered part of the packaging and are not part of the product weight.

Two handbooks (133 and 44) produced by NIST have been incorporated in the regulations, which identify tests to ensure packages are not underweight.

Inspection Modernization

Hazard Analysis and Critical Control Point

In 1991, FSIS made significant progress in its Implementation Study to further evaluate and demonstrate the effectiveness of Hazard Analysis and Critical Control Point (HACCP) systems for meat and poultry inspection.

HACCP is a universally recognized and proven system for preventing, rather than detecting, foodborne contamination. The system has been used in some food production settings for years and has been endorsed by many expert scientific groups, including the National Academy of Sciences, the National Advisory Committee on Microbiological Criteria for Foods, the Food and Agriculture Organization, and the World Health Organization of the United Nations.

HACCP is a logical and simple, but specialized, system for (a) identifying points in food production where a hazardous or critical situation could result; and (b) taking steps to keep these "critical control points" (CCP's) under control. The system involves setting requirements for each CCP, establishing procedures to monitor each CCP, and establishing corrective action to be taken when a deviation is identified at a CCP. It also documents the HACCP plan, and establishes procedures to verify that the HACCP plan is working correctly, including sampling and testing.

In January 1990, FSIS began a comprehensive study of HACCP principles and their applicability to the meat and poultry inspection program. The agency met with more than 3,000 persons in 100 meetings across the country. FSIS also held 5 public hearings to get suggestions on its study and the types of products and processes for which to develop generic HACCP models. FSIS also selected 25 employees to serve as subject matter experts at the 5 workshops at which industry technical experts develop generic HACCP models to test in volunteer plants. In 1991, FSIS developed an evaluation plan to collect and analyze quantitative and qualitative data pertaining to the effectiveness of the model HACCP plans, plant-specific HACCP plans, and the impact of implementing HACCP nationwide. The plan has been peer-reviewed by a panel of experts in meat science, public health, statistical analysis, and management programs.

During 1991, industry experts developed generic HACCP models for refrigerated foods, cooked sausage, poultry slaughter, and ground beef. Some generic models will be tested in volunteer plants of varying size and complexity. The refrigerated foods and cooked sausage models are already being tested.

In-plant testing involves 3 phases. For phase 1, baseline data are collected for 3 months before the HACCP system is put into place. Once the baseline is completed, a 3-month implementation phase (phase 2) is instituted. In phase 3, after FSIS and the plant agree the HACCP system is operating effectively, data are collected for another 6 months. Data collected at the third phase are not shared with the plant until the end of the study.

The identity of volunteer plants and test data will be kept confidential until the test data have been analyzed and final reports on the study have been completed.

Reviews Prove Inspection Is Sound

Special reviews of poultry slaughter plant operations in Georgia and Alabama show no evidence that unwholesome products were sold to consumers and show that FSIS personnel conducted thorough inspections in those plants.

FSIS reviewers conducted the intensive reviews in June, after a southeastern newspaper quoted 12 food inspectors in 11 federally inspected poultry plants claiming there were serious problems in the plants and with poultry inspection in general. Reviewers found only a few problems, many of which were corrected immediately. Others that did not jeopardize product safety or integrity were corrected shortly thereafter. In August, agency followup reviews in the plants showed all deficiencies had been corrected.

Plants had performed either "acceptable" or "acceptable with variations" in 11 of the 12 inspection processes reviewers examined. However, sanitation was classified as "needs improvement" in several plants.

The other 11 inspection areas reviewers examined were: (1) facilities, equipment, water supply, and sewage disposal; (2) slaughter; (3) pest control; (4) receiving and control of incoming products and materials; (5) product handling and preparation; (6) marking, branding, labeling, and packaging; (7) retained, returned, or restricted product; (8) finished product storage and shipping; (9) control of inedible and condemned material; (10) residues, sampling, and product analysis; and (11) export.

FSIS reviewers examined several hundred individual tasks in each inspection area. They also observed additional monitoring activities of inplant inspectors and their adherence to proper recordkeeping.

Following the reviews, FSIS conducted interviews with 8 of the 12 inspectors; 4 declined to be interviewed. The purpose of the FSIS interviews were (1) to determine the accuracy and completeness of the information in the newspaper reports; (2) to solicit information about problems or concerns regarding the inspection program; and (3) to request suggestions on ways to improve the inspection program. The respondents were promised anonymity to ensure the most honest and unrestrained feedback. Other inspection personnel also made statements. The agency spoke with 31 inspectors and 10 veterinarians.

Several recurring themes surfaced during the interviews, including concerns about short staffing and vacancy rates, poor communication at all levels, lack of involvement in decisionmaking, and questions about the future direction of the agency. Other discussions included suggestions for improvement and the inspectors' overall impressions of the state of poultry inspection. The interviews confirmed that the inspection workforce is working to ensure a safe poultry supply.

Performance Based Inspection System

In 1991, FSIS documented and published a technically valid and legitimate basis of inspection tasks, implemented a Progressive Enforcement Actions (PEA) plan, and established a national database and reporting system for its Performance Based Inspection System (PBIS). PBIS encompasses all processed products inspection activities by identifying compliance

standards, regulatory authorities, and inspection tasks in an Inspection System Guide. It also includes a means for scheduling inspection tasks through an automated system; assembling and reporting inspectors' findings on a nationwide basis; and establishing procedures to initiate corrective action for noncompliance with inspection requirements.

Documentation of the basis for performing inspection tasks provides the foundation for scheduling inspection activities based upon health and safety, economic adulteration, and risks to the consumer.

The PEA plan provides specific guidelines for uniform progressive enforcement when inspectors document repeated deficiencies and plant management is unwilling or unable to prevent problems.

The plan includes a series of escalating steps and regulatory actions. Ultimately, if the plant does not comply with Federal regulations, the PBIS provides a basis for the agency to consider withdrawal of inspection—which effectively closes a plant, as Federal inspection is a prerequisite for operation.

The establishment of a national PBIS database and reporting system provides FSIS with the ability to assess trends in the production of processed meat and poultry products, determine the compliance performance of the regulated industry, and develop inspection methodologies appropriate for the production of processed meat and poultry products.

Workplace Safety

FSIS developed a 7-point plan to improve safety in the workplace following a tragic fire in a Hamlet, N.C., poultry processing plant in September 1991, in which 25 people died and 56 others were injured. FSIS immediately implemented the first point by requiring inspection personnel in plants to ensure that acceptable Occupant Emergency Plans were completed and properly posted. As a follow-up, each year the agency will observe National Fire Prevention Week as the date to formally document that each federally inspected plant has an acceptable Occupant Emergency Plan.

The 7 points in the plan are:

- 1) FSIS personnel will ensure acceptable Occupant Emergency Plans are posted in federally inspected plants, as previously mentioned.
- 2) FSIS and the Occupational Safety and Health Administration (OSHA) are developing a memorandum of understanding to outline safety training for FSIS employees and procedures for referring safety violations to OSHA.
- 3) FSIS will periodically send employee reminders about safety procedures. Specific instructions regarding emergency plans were mailed to all inspection employees.
- 4) FSIS is developing a proposed regulation and will ask for public comments on instituting requirements for plant management to document that the facility meets all building, safety, and fire codes before approving blueprints for new facilities or modifications to existing plants.

- 5) FSIS is exploring additional safety training opportunities for all of its employees. This training is intended to provide information on personal safety hazards to be looked for on the job.
- 6) FSIS is reinforcing existing occupational health and safety committees and their importance. Committees are being established where they did not previously exist.
- 7) Periodic checks of safety procedures will be added to the Performance Based Inspection System duties of inspectors.

National Correlation Center In 1991, FSIS established the National Correlation Center in Ames, Iowa, for continuing education in pathology and to enhance the scientific basis for inspection operations. Education provided by the Center is designed to strengthen national uniformity in maintaining FSIS regulatory standards for carcass disposition. Establishment of the Center represents another step in meeting recommendations of the National Academy of Sciences, which in 1985 called for greater emphasis in inspection of animal pathology and other public health concerns.

The Center's staff of 5 veterinarians with advanced education in pathology is charged with providing intensive refresher education in pathology to the agency's nearly 1,200 veterinarians in slaughter plants. Because veterinarians must be on the job at all times and are widely dispersed throughout the country, the Center's correlators travel to various plants to provide on-site training.

During the sessions, veterinarians examine animal diseases, including etiology and pathogenesis. They also review how to detect and interpret the significance of any gross lesions and how to trace the pathology back to the tissue where the disease started. Veterinarians also review proper submission of pathology samples to FSIS laboratories.

Maryland Inspection Program

FSIS assumed responsibility for Maryland's meat and poultry inspection program in March 1991. The Governor of Maryland informed the agency on January 2 that the State would not continue funding its program. States are required to turn over their inspection programs to the Federal Government if, for any reason, they cannot or choose not to maintain their inspection programs.

Approximately 50 Maryland State plants came under Federal inspection in March 1991. About 30 State employees were hired as Federal inspectors.

National Advisory Committee on Meat and Poultry Inspection

The National Advisory Committee on Meat and Poultry Inspection provides advice and recommendations to the Secretary of Agriculture on issues concerning the Federal meat and poultry inspection program. In June 1991, the Committee developed advisory resolutions on several inspection issues, including nutrition labeling, the production and slaughter of animals from biotechnology research, Federal retail exemption policy, and the use of user fees in food inspection for domestic consumption. The Committee plans to expand its meeting schedule to a semiannual basis beginning in fiscal year 1992.

Reduction of Microbiological Hazards

FSIS considers the greatest risks to public health posed by meat and poultry to be from microbiological hazards. Any food of animal origin may contain natural bacteria that can cause illness if not destroyed by processing or cooking. FSIS continues to search for new ways to control microbiological hazards while enforcing existing requirements and carrying out extensive food handling education programs.

Microbiological Criteria for Foods Advisory Committee The National Advisory Committee on Microbiological Criteria for Foods is important to the accomplishment of FSIS' mission of ensuring that consumers receive safe meat and poultry products. In response to a recommendation by the National Academy of Sciences, the Committee was established under the auspices of the Food and Drug Administration, the Department of Commerce, the Department of Defense, and USDA. The membership panel comprises respected and knowledgeable professionals representing academia, government, industry, and consumers. The Committee provides advice and recommendations on the use of microbiological criteria for ensuring food safety based on sound science that can be incorporated in food safety programs at the national, State, and local levels.

In 1991, the Committee released a report on *Listeria monocytogenes* with specific recommendations for controlling foodborne listeriosis. Among the Committee's major recommendations are control strategies for improving disease surveillance; targeting specific foods for investigation; and developing methods to minimize the presence, survival, and multiplication of the bacteria in foods. The Committee also developed a report on recommended microbiological criteria for raw molluscan shellfish to enhance the safety profile of those products.

The Committee also developed generic HACCP plans for red meat and poultry that could guide FSIS in its implementation of a HACCP-based inspection program. Previous Committee recommendations were used as a basis for FSIS HACCP workshops. The Committee also established 3 new subcommittees during the year, including working groups on food handling practices, *Campylobacter*, and research concerns.

Salmonella Testing and Research FSIS continues to monitor meat and poultry to determine trends in the incidence of *Salmonella* on these products. FSIS is looking forward to results from the two surveys which should be completed mid-1992. In March 1990, FSIS began a 2-year nationwide monitoring survey, of levels of *Salmonella* in 25-gram samples of raw chicken, turkey, pork, and beef. In May 1990, the agency began a second 2-year survey to measure the levels of *Salmonella* on whole broiler carcasses after chilling. Previous data from 1982-84 showed 35.2 percent of broilers to be contaminated with *Salmonella*, but did not measure the number of organisms on the carcasses. The new data will be used to develop a benchmark for the number of *Salmonellae* present on *Salmonella-*positive carcasses, aiding in microbial reduction efforts.

Improving Consumer Confidence in Poultry In a forceful message in June 1991, FSIS urged the poultry industry—the subject of many negative newspaper and television stories in 1991—to make changes to restore consumer confidence in poultry.

FSIS urged industry to step up efforts to integrate the HACCP system into product production and encourage HACCP in the hatchery and grow-out phases or require it in an integrated system. All of industry must be committed to implementing the prevention-based system and to being accountable to government and the consumer for producing safe food. No inspection program in the world can provide optimal assurance for food safety without this commitment and accountability by industry.

Industry was also encouraged to open its doors for public tours to give consumers a "bird's eye view" of how a modern, clean poultry plant operates; to move forward on nutrition labeling, a clear consumer desire; and to put handling instructions on labels to help consumers safely handle and prepare poultry products.

National Broiler Industry Research

From August to December 1991, the National Broiler Council and the Southeastern Poultry and Egg Association collected baseline data and tested innovative processing methods in 5 poultry plants to reduce bacterial contamination on broilers. Test results of baseline data show the levels of *Salmonella* on raw product to be very low using current inspection procedures. Carcasses that tested positive had an average of less than four *Salmonella* cells per carcass. After the new procedures were implemented, the number of cells per carcass as well as the number of carcasses testing positive were reported to be reduced. The industry will continue to investigate ways to reduce the incidence of microbial contamination of raw product.

The test results were analyzed by the Food Safety Consortium, a federally sponsored research group consisting of the University of Arkansas, Kansas State University, and Iowa State University. The Food Safety Consortium was established by Congress to study issues related to food safety.

Puerto Rico Study

In December 1991, FSIS submitted data from two Puerto Rico studies for publication in the January 1, 1992, <u>Journal of the American Veterinary Medical Association</u>. In November and December 1987, FSIS had collected baseline data in a poultry plant in Coamo, Puerto Rico. Samples were collected from whole or cut-up poultry parts at 5 different sites—before evisceration, prechill, postchill, after automatic cut, and giblets preparation.

Results indicated that slaughter, dressing, and chilling practices significantly decreased the bacterial contamination on poultry carcasses, as determined by counts of aerobic bacteria, Enterobacteriaceae, and *E. coli. Salmonella* was not counted, but was determined to be present or absent by culturing the rinse. The prevalence of *Salmonella* decreased during evisceration and then increased during immersion chilling.

In March 1989, FSIS added chlorine to carcass and giblet chill water, and analyzed samples from 3 plant sites—giblet preparation, and before and after carcass chilling. Results showed that placing carcasses in chlorinated chill water reduced aerobic bacteria, Enterobacteriaceae, and *E. coli* counts. Chlorination of chill water also aided in the control of bacterial cross-contamination of carcasses, giblets, and necks. The prevalence of *Salmonella* remained nearly the same on whole carcasses exiting the chiller as on those entering the chiller.

Test results for using various procedures will also be published.

Competitive Exclusion

Because inplant improvements to reduce *Salmonella* are likely to be more effective if the microbial load on incoming birds is reduced, FSIS is looking at ways to control *Salmonella* before animals reach the plant.

FSIS and Agricultural Research Service researchers continue testing the competitive exclusion concept in Empresas Picu, a poultry plant in Coamo, Puerto Rico. The purpose is to see if competitive exclusion will control *Salmonella* and *Campylobacter* in commercial broiler chickens.

Under the study, a harmless bacterial culture is sprayed on chicks. The culture is also later added to the birds' drinking water. These are attempts to get the culture to grow in the chicks' intestines and to prevent *Salmonella* and *Campylobacter* colonization.

To study the prevalence of *Salmonella* and *Campylobacter* in broilers, in November 1990, researchers exposed 11,000 chicks to the culture, but did not expose a control group of 5,000 birds. The birds were slaughtered in mid-December 1990 and samples were collected from the birds' cecum and carcass rinses were obtained after the birds exited the chiller. Testing was conducted again in mid-April 1991.

In late April 1991, the testing was repeated with 40,000 chicks in both the inoculated group and control groups.

Currently ARS and FSIS researchers are completing the analysis and comparing the 3 studies. Based on preliminary results, both agencies believe competitive exclusion is potentially an economical and effective method to reduce *Campylobacter* and *Salmonella* in broilers. Results from the 3 studies will be submitted for peer review and published.

Irradiation of Poultry

The Food and Drug Administration approved the use of irradiation for microbial reduction in raw poultry in May 1990. Irradiation is legally a food additive. FSIS is currently developing rules for its effective use in poultry.

In the 1980s, FDA approved the use of irradiation to control insects in grains and spices, insects in fresh fruits and vegetables, and trichina in pork. USDA approved the use of irradiation in pork in 1986. The food industry, however, has not widely implemented food irradiation.

The safety of food irradiation has been endorsed by prestigious groups such as the Codex Alimentarius Commission, the Food and Agriculture Organization, the World Health Organization, the American Medical Association, and the National Advisory Committee for Microbiological Criteria of Foods.

Residue Prevention

Although many consumers are concerned about chemical residues, scientific evidence shows very few illegal residues or health risks from animal drugs or other chemical residues in meat and poultry. The FSIS residue program supports inspection and other enforcement activities and encourages the regulated industry to institute their own residue prevention programs. FSIS works closely with EPA and FDA, the agencies that set legal residue limits. Together, these actions reduce the potential for animal drugs, pesticides, or environmental contaminants to enter the food supply.

In its routine statistical monitoring program to track nationwide residue trends, FSIS found that less than 1 percent of the samples analyzed show illegal residues—and that percentage has been steadily declining over the past 2 decades. In most instances, violations are only slightly above legal limits, which include at least a hundredfold margin of safety. The monitoring program also identifies potential problem areas where more intensive enforcement testing may be necessary to protect consumers. In addition, inspectors have the authority to test animals when they suspect a residue problem; for instance, an apparent injection mark or other indications of medical or chemical treatment.

Sulfamethazine Violation Rates Continue To Decrease

During 1991, FSIS continued daily testing in hogs for the antimicrobial sulfamethazine—a surveillance program begun in 1988. The agency uses the rapid Sulfa-On-Site test in the largest hog slaughter plants (approximately 80) across the country. Carcasses that test positive are retained and samples sent to a laboratory.

When violations are confirmed in the laboratory, those carcasses are condemned. Test data for 1991 will be available in mid-1992. Test data from 1990 show that inspectors tested more than 108,000 hogs, and 281 muscle violations were confirmed by laboratory analysis.

FSIS intensified testing after FDA preliminary studies in late 1987 indicated that sulfamethazine residues appeared to be linked to malignant thyroid tumors in rats and benign tumors in mice. Intensive testing has shown a marked decrease in the nationwide violation level in market hogs, from 3.6 percent in 1987 to 0.76 percent in 1990.

Dairy Cow Surveillance

In August 1991, FSIS began a 1-year surveillance program to determine the frequency of occurrence of antibiotic and sulfonamide residues in dairy cows versus other beef cows.

FSIS is now collecting baseline data. Each month, dairy cows and beef cows are sampled in each of the agency's 5 regions, for a total of 3,750 cows. The program will enable FSIS to determine specific residue incidence in dairy and beef cows on a regional and nationwide basis.

Clenbuterol

In March 1991, FSIS joined forces with the Food and Drug Administration and USDA's Extension Service to head off a possible public health problem related to the use of clenbuterol in livestock show animals. FDA warned that clenbuterol, an illegal synthetic drug, had reportedly been used in calves, lambs, and swine shown at fairs and livestock exhibits. As show animals were being readied for spring and summer events, FSIS moved quickly to develop methodology to detect clenbuterol residues in meat. Reports of illness in Spain and France let to the quick action by FSIS, although show animals make up less than 1 percent of the animals slaughtered each year.

Clenbuterol alters the makeup of muscle and fat, thus improving the appearance of show animals. The use of the drug is illegal in the United States for any animal, but is approved for use in animals in 13 foreign countries.

FSIS and FDA urged State and county agriculture officials to conduct urine tests on suspect animals at the local level and to report positive findings to regional FSIS offices. FSIS directed its field inspection force to retain

animal carcasses if urine tests were positive and to submit liver and tissue samples for laboratory analysis. Carcasses and livers that were confirmed positive for clenbuterol were to be condemned. FSIS and FDA indicated that they would take strong regulatory action against people involved in the use and distribution of clenbuterol. Fortunately, no clenbuterol residues have been confirmed to date in samples analyzed by FSIS laboratories.

FAST Test for Animal Drug Residues

In August 1991, FSIS began a study to compare its newly developed "Fast Antimicrobial Screen Test" (FAST) with the Swab Test on Premises (STOP) and Calf Antibiotic and Sulfa Test (CAST). The study was conducted in 3 cow plants and 2 bob veal plants in the California area. FAST can detect both antibiotics and sulfonamide drug residues in the liver and kidneys and can provide results in 5 hours, compared with the overnight incubation required for the CAST and STOP tests.

If the study proves FAST to be as effective as STOP and CAST in detecting antibiotic and sulfonamide drug residues, agency inspectors may soon use the FAST test in place of CAST and STOP.

Other Science Issues

Ham Netting. FSIS took several steps to protect consumers from carcinogenic nitrosamines associated with rubber in elastic netting used on certain cured hams.

In 1990, FSIS detected dibutylnitrosamines--carcinogenic nitrosamines--in hams cured in elastic netting. In July 1990, FSIS announced it would ban the use of the elastic netting on August 13, 1990. However, netting manufacturers filed suit against USDA, and in August 1990, the U.S. District Court in Washington, D.C., enjoined USDA's ban pending an administrative hearing. In November 1990, the Court approved an agreement to allow netting manufacturers interim marketing privileges while FDA reviews safety data submitted by the manufacturers. FSIS will determine appropriate regulatory action based on FDA findings. FSIS also reaffirmed its authority to remove from commerce adulterated hams upon confirmation that they contain excessive nitrosamine levels.

FSIS is planning a nitrosamine sampling program to scientifically determine if a problem still exists.

International Activities

During 1991, FSIS took steps to ensure that consumers in the U.S. and abroad have products that are safe, wholesome, and accurately labeled and that U.S. products can compete in international markets.

The United States exported 1.7 billion pounds of meat and poultry to more than 40 countries, with a value of \$2.5 billion. It imported 2.6 billion pounds of meat and poultry from 29 countries. Five countries accounted for approximately 90 percent of the imports.

FSIS ensures the wholesomeness of imported meat and poultry products. It requires the country of origin to inspect slaughter and processing plants in ways that are equal to the inspection performed in U.S. domestic plants every day. The agency reviews foreign inspection systems to ensure that they are equal to the U.S. system.

FSIS also reinspects imported meat and poultry products on a sample basis as they enter the United States. Import reinspection results provide a check on the effectiveness of foreign inspection systems.

Codex Alimentarius Commission

For many years, FSIS has participated in activities of the Codex Alimentarius Commission, an international organization that develops food standards to protect consumers and promote fair trade. Codex, with 138 member nations, operates under the auspices of the Food and Agriculture Organization and the World Health Organization of the United Nations. The new U.S. coordinator of Codex is Dr. Alex Thiermann, Deputy Administrator for International Services in USDA's Animal and Plant Health Inspection Service.

The Codex Alimentarius Commission held its 19th session in Rome, Italy, July 1-10, 1991, with approximately 77 countries and 25 international organizations represented. Recommendations developed by an FAO/WHO Conference on Food Standards, Chemicals in Food, and Food Trade were considered during this session and numerous procedural changes were addressed. The Commission agreed to establish an import/export control committee, which Australia volunteered to host.

With regard to food additives and contaminants, the United States was successful in encouraging the Commission's adoption of a moderate approach to the issue of migration of compounds from packaging materials. Also, the issue of international harmonization of risk assessment received intense discussion at the session, including the identification of barriers to such harmonization. The United States, however, was disappointed by a vote to postpone taking final action on approving maximum residue limits for the animal drug hormones estradiol, progesterone, testosterone, and zeranol until the 1993 Commission meeting. The United States and other countries, including Japan and the former Soviet Union, opposed this action because it ignored expert scientific evidence on the safety of the compounds. This is the first time a Commission food safety decision did not conform to the recommendation of a Codex technical committee.

The 6th session of the Codex Meat Hygiene Committee was held in Rome the week of October 14, 1991. Four FSIS representatives and one consumer representative participated. The committee, chaired by New Zealand, reviewed 3 codes—a fresh meat code, an ante-mortem and post-mortem inspection code, and an ante-mortem and post-mortem judgment code. The committee, representing 31 countries and 4 international organizations, generally reached agreement on the draft codes that had been revised to include, among other things, provisions for applying HACCP to inspection procedures.

The 6th session of the Codex Committee on Residues of Veterinary Drugs in Foods was held October 21-25, 1991. Thirty-five countries and 8 international organizations were represented. Actions included reaching agreements on appropriate and adequate analytical methodology for residues of a number of animal drugs in edible animal products; setting priorities for safety reviews of compounds scheduled for consideration in 1993; and advancing several compounds toward establishing maximum residue limits. The United States introduced a document concerning the Commission's July 1991 decision on hormones and stressed the need to ensure that the work of the Commission was based on sound scientific principles.

The 25th session of the Codex Committee on Food Hygiene was held October 28-November 1, 1991. Twenty-seven member countries and 5 international organizations were represented. The Committee discussed issues such as *Listeria, Salmonella*, irradiation, and HACCP. The Committee agreed that irradiation is a useful technology for the control of foodborne pathogens. In addition, a HACCP text was developed; it consisted of principles and procedures that could be used by regulators, producers, and processors in ensuring food safety. The draft HACCP text will be circulated for government comment before the Committee holds its 26th session in 1993. The United States has urged that the principles and application of HACCP be reviewed by the Commission under an accelerated procedure.

Exports to the European Economic Community (EEC)

During 1991, the longstanding dispute continued with the European Community (EC) over meat inspection procedures embodied in its Third Country Directive. For the past several years, the number of U.S. plants listed as eligible to export to the EC has steadily declined.

In 1991, an exchange of letters between Agriculture Secretary Madigan, U.S. Trade Representative Carla Hills, and their EC counterparts established a two-stage process for resolving the dispute. In the first step, some U.S. plants were reviewed and relisted. The second step, which is underway, involves detailed technical discussions to establish the equivalency of the two systems.

FSIS Compares U.S. and Canadian Systems

In July 1990, the General Accounting Office (GAO) released the report "Food Safety—Issues USDA Should Address Before Ending Canadian Meat Inspections." GAO recommended that USDA direct FSIS to more thoroughly document the equivalency of the Canadian meat and poultry inspection system to the U.S. system. To this end, FSIS completed an indepth review of the equivalency of the U.S. and Canadian systems. The review included a comparison of the organizational functions, structure, and staffing of the 2 systems as well as the completion of risk profiles in the areas of contamination, disease, economic fraud/compliance, processing, and residues.

Results of the review confirm that the two inspection systems are equivalent. In fact, the similarities far exceed standards FSIS uses to determine "equal to" status.

Also in 1991, FSIS completed an analysis of data collected on reinspections of Canadian product presented for import inspection during 1990. A comparison of 1989 and 1990 overall rejection rates for product examination showed that a statistically significant reduction had occurred.

In 1989, 3.0 percent (90 lots) of the 3,030 lots randomly selected for reinspection were rejected for contamination, processing defects, unsound condition, or pathological defects. This figure contrasted with the 1.6 percent (42 lots) rejection rate in 1990 for a comparable sample.

Public Information and Consumer Education

The public has a right to a food supply that is safe, wholesome, and accurately labeled; a right to know how FSIS accomplishes that mission; and a right to participate in decisionmaking. During FY 1991, FSIS

expanded its efforts to inform and involve the public. Through its health education program, FSIS continued to pursue its objective of affecting consumer behavior in ways that reduce the incidence of foodborne illness.

Education on Safe Food Handling

Most foodborne illness can be prevented by proper food handling. Therefore, FSIS, since 1971, has educated the public about safe food handling. During FY 1991, FSIS designed new educational programs targeting new audiences, including teenagers and audiences that face special risks for foodborne illness.

During 1991, technical information specialists on USDA's Meat and Poultry Hotline responded to more than 96,000 calls. The scope of the Hotline also expanded to include nutrition information as it relates to meat and poultry products. The Hotline staff also conducted interviews with over 700 media representatives to provide food safety information for print and broadcast media, and were instrumental in the development of food safety publications and video news releases.

More than 300 million consumers were reached with food safety information from newspaper and magazine articles generated by *Food News for Consumers*, the agency's consumer newsletter, other FSIS feature articles, and interviews with the Hotline staff.

The agency distributed 200,000 copies of publications on safe food handling to consumers, teachers, health professionals, food service institutions, and the food industry.

FSIS reprinted and distributed *Keep Your Food Safe*, a Food and Drug Administration publication designed to supply food safety information to persons with low reading levels. This publication will be distributed primarily through Women, Infants, and Children (WIC) programs and national literacy programs.

Public Information

FSIS employees, industry, consumer groups, and others have the right to know about agency regulations and policies pertaining to food safety, and to participate in shaping those programs and policies. During 1991, FSIS increased its efforts to communicate about its policies, programs, and regulations with interested audiences. The agency held press briefings to bring the media up-to-date on its policies, including nutrition labeling and residue monitoring data. Press releases, speeches, and backgrounders on specific program issues have long been released to the public.

Food Safety Review. During the year, FSIS published 2 issues of its new scientific magazine, the *FSIS Food Safety Review*. Its major purpose is to inform food science and public health officials about current science-based initiatives to protect the public health.

Campylobacter Backgrounder. In the Spring of 1991 when several TV stations aired alarming reports claiming 2,000 deaths a year from *Campylobacter* on poultry, FSIS immediately developed and released background information about *Campylobacter* to the public. The purpose was to acquaint the public with basic information about the common bacteria and how to prevent foodborne illness through safe food handling. The Centers for Disease Control report on outbreaks of campylobacteriosis cited 2 actual fatalities, neither traced to poultry.

Correspondence

During FY 1991, FSIS prepared over 3,000 letters in response to correspondence relating to its policies and programs. The correspondence covered a broad array of topics including inspection procedures, labeling of meat and poultry products, residue testing, consumer inquiries, and the safety of imported food products. The agency also responded to 400 Freedom of Information Act and Privacy Act requests and provided administrative and management direction for over 15 Codex and agency advisory committee meetings.

Employee Communication

FSIS is continually working to improve employee communication and involvement. In 1991, FSIS held several audio conferences via telephone with employees nationwide about HACCP, Total Quality Management, and Nutrition Labeling. Audio conferences are a direct—and economical—way to communicate with many field employees at once. Conference participants included FSIS employees with diverse professional backgrounds such as compliance officers, training specialists, inspectors, regional and laboratory personnel, and others.

Employee Newsletter. The *FSIS Communicator*, a bimonthly employee newsletter, is mailed to each employee's home. The newsletter comprehensively reports important information about the agency and its policies, programs, and actions.

Videotape. FSIS created and released a generic videotaped presentation, which is designed to introduce FSIS to the public. It can be used by FSIS employees for public meetings, conferences and in any other setting in which employees explain the agency's role.

Enforcement

FSIS conducts many routine activities to enforce the meat and poultry inspection laws, including pre-approval of facilities and equipment, inspection of slaughtering and processing, and pre-market label approval. These routine activities can trigger a range of enforcement actions including product retention and a temporary halt in production until problems are corrected, intensified voluntary inspection, product recalls, and other actions. In the vast majority of instances, these actions are effective in protecting the public, stimulating industry correction of unintentional violations, and deterring deliberate violations.

When routine enforcement activities are not sufficient, FSIS can pursue other administrative or legal actions. These actions may include product seizures (if a request for voluntary recall is denied), letters of warning for minor violations, undercover investigations, injunctions, referral for criminal prosecution, and withdrawal of inspection. The laws and regulations specify procedures that must be followed to ensure due process.

Criminal Prosecutions

Sulfites are not permitted in fresh meat and poultry because they mask the natural deterioration of the products. They can cause serious health problems, including death, in sensitive individuals. In 1991, after FSIS reinforced its stance that illegal use of sulfites will not be tolerated, Mortison B. Hudson, owner of Morty Pride Meats Inc., of Fayetteville, N.C., had to divest himself from all firm operations for a period of 4 years.

FSIS also suspended inspection from the firm for 2 weeks. The firm and owner were convicted in August 1990 of preparing, selling, and transporting misbranded pork sausage adulterated with sodium sulfite.

In another significant criminal prosecution action, 4 officials, a retail food store, and a meat distributor in Boston, MA, were fined a total of \$239,000 in July. The product was stored under grossly insanitary conditions, causing spoilage and contamination with rodent feces and gnaw marks.

In September, Pender Packing Company, a meat processing firm in Rocky Point, N.C., and two of its officials were fined a total of \$115,800 for sulfite violations. The Federal court fined the firm \$100,000 and Sidney Baker, president, and Danny Baker, vice-president, \$5,000 each. The firm and Sidney Baker were placed on probation for 5 years. Danny Baker was sentenced to 3 years' probation. Sidney Baker was also ordered to pay approximately \$5,800 over a 5-year period to cover costs associated with administration of his probation.

Recalls

To ensure consumer protection throughout the food production and distribution system, FSIS monitors meat and poultry products once they leave a federally inspected plant. When meat or poultry products already in consumer channels are found to be potentially hazardous to consumers, FSIS asks the firm to recall the products and ensures appropriate public notification. If a firm does not comply, FSIS may seize the product through court order. FSIS investigates to be certain the recall is effective and that corrections are made so the firm distributes only safe and wholesome products. In 1991, FSIS monitored 27 recalls. Two of the largest were:

- —Beech-Nut Nutrition Corporation, a St. Louis food processing firm, voluntarily recalled approximately 230,000 6-ounce tubs of its "Beech-Nut Table Time Chicken & Stars Microwave Meal for Children." Some of the packages contained lumps of chicken that were difficult to swallow. The products were distributed to wholesalers and retailers in 21 States.
- —Bunker Hill Foods, a Bedford, VA, food processing firm, voluntarily recalled about 30,000 15-oz. cans of "Bunker Hill Original Gravy & Beef Chunks" because some of the product was improperly processed. The beef product was distributed to retail stores in Virginia, North Carolina, South Carolina, Tennessee, and Florida.

About 10 of the recalls involved products contaminated with *Listeria*. These products included sliced turkey, smoked sausage, souse, ham salad, bologna, chicken salad, and other products. The agency has been monitoring all ready-to-eat meat and poultry products for *Listeria* since April 1989.

Total Quality Management

FSIS has made a firm commitment to Total Quality Management (TQM), a philosophy that involves employees in continuously improving processes to provide better services. In 1990, senior managers and representatives of the inspectors' union and the employee organizations completed TQM training. During that year, FSIS also established the Quality Resource Center, which houses videotapes, handbooks, briefings, and other TQM

information. The materials are accessible to all FSIS employees, including field employees.

In 1991, FSIS developed a strategy for implementing TQM throughout the inspection program. Each unit within the inspection program developed individual TQM plans, using as a guide the following quality policy statement and quality operating principles:

The FSIS TQM Policy Statement:

"FSIS is a science-based consumer protection agency, pledged to ensure the public receives only safe, wholesome, and accurately labeled meat and poultry products. We will be uncompromising in our drive to achieve quality, reward excellence, and continuously improve all that we do."

The FSIS TQM Operating Principles:

- 1. We will recognize that people are the agency's most valuable resource and respect each other as individuals and contributors to our mission.
- 2. We will use a team approach to problem prevention with participation by all.
- 3. We will incorporate critical thinking, scientific knowledge, and practical application in all operations.
- 4. We will follow the highest standards of integrity, equity, and fairness.
- 5. We will communicate openly and honestly with each other and with the public.

Programs and staffs have many total quality initiatives underway to improve their services. For instance, FSIS employees in import inspection applied TQM principles to determine why a significant number of import residue samples were discarded. An in-depth study revealed samples were discarded because they were spoiled or rancid, sent to the wrong laboratory, contained wrong tissues, or contained excessive fat. In some cases, an insufficient number of samples was collected. The staff immediately implemented procedures—such as authorizing the use of express mail to send samples to laboratories—which dramatically reduced the number of samples discarded. The group is continuing to monitor the data to find additional solutions to the problem.

Employee involvement in decision making in the Review Division has resulted in new methods of scheduling plant reviews and improved information gathering procedures. TQM is also being applied to ensure compliance with meat and poultry inspection regulations. The Compliance staff is using TQM to plan investigations and case reviews. To improve its mission, the Information and Legislative Affairs staff, which disseminates public and consumer information, looked at ways to improve office procedures and to make employees feel more valued.

By incorporating TQM principles in inspection, FSIS is improving and strengthening its mission in public health protection. The concept focuses on workforce involvement, which is critical to all of the agency's major initiatives for enhancing meat and poultry inspection.

\mathbf{III}

Domestic and Export Inspection



nly federally inspected meat and poultry plants may sell their products in interstate or foreign commerce. In 1991, FSIS inspected over 117.2 million head of livestock and over 6.6 billion birds.

More than 9,000 full-time FSIS employees, including over 7,800 Inspection Operations employees of which over 1,100 are veterinarians, carry out the inspection laws in some 6,400 meat and poultry slaughtering and processing plants. Animals are inspected before slaughter to detect diseases or other abnormalities and are inspected again after slaughter. Products are inspected during processing, handling, and packing.

Control and condemnation of misbranded or adulterated products is the most important way FSIS encourages compliance with inspection laws and regulations. However, the agency can take other actions if necessary to prevent adulterated or misbranded products from reaching consumers. These actions include temporarily halting inspection (and thus production) until serious problems are corrected, stopping product distribution, persuading companies to recall violative products, and seeking court-ordered product seizures when necessary.

FSIS also monitors State inspection programs, which inspect meat and poultry products that will be sold only within the State in which they were produced. The 1967 Wholesome Meat Act and the 1968 Wholesome Poultry Products Act require State inspection programs to be "at least equal to" the Federal inspection program. If States choose to end their inspection programs or cannot maintain this standard, FSIS must assume responsibility for inspection.

Figure 3-1 shows the number of federally inspected plants and the number of full-time permanent Inspection Operations field personnel by location. Employment figures represent Inspection Operations field employees in the regions, areas, and circuits only; headquarters employees are not included. Plant figures include USDA-staffed plants and Talmadge-Aiken plants, which are federally inspected but staffed by State employees.

In addition, about 80 International Programs employees inspect meat and poultry imports at points of entry into the United States. Figure 3-1 does not include these employees or the import establishments covered by International Programs.

Exhibit 3-1

Number of Federally Inspected Plants and FSIS Inspection Employees by Location

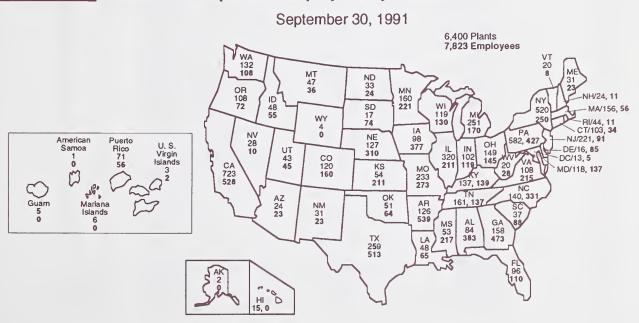


Table 3-2 lists the number of federally inspected meat, poultry, and combination meat and poultry plants that operated under Federal inspection in each State or U. S. territory as of September 30, 1991. In addition, imported meat and poultry products are examined at 150 official import establishments.

Number of Federally Inspected Meat, Poultry, and Combination Meat and Poultry Plants by Location

State or Territory	Meat Plants	Poultry Plants	Meat & Poultry Plants	Total
Alabama	10	32	47	61
Alaska	12	0	17 0	61 0
American Samoa	1 1	ŏ	Ö	1
Anizona	12	ő	12	24
Arkansas	33	33	60	126
California	229	38	456	723
Colorado	69	2	49	120
Connecticut	43	2	58	103
Delaware	1 1	6	1	8
District of Columbia	5	2	6	13
Florida	25	6	59	90
Georgia	21	44	46	111
Guam	4	0	1	5
Hawaii	1	0	1	2
Idaho	14	0	34	48
Illinois	136	10	149	295
Indiana	40	16	41	97
lowa	46	5	47	98
Kansas	25	1	28	54
Kentucky	76	5	56	137
Louisiana	13	4	25	42
Maine	9	0	22	31
Manana Islands	2	0	4	6
Maryland	60	18	40	118
Massachusetts	61	13	82	156
Michigan	125	2	124	251
Minnesota	36	15	109	160
Mississippi	5	23	9	37
Missouri	98	20	115	233
Montana	16	0 5	31	47
Nebraska Nevada	76	2	46	127 28
New Hampshire	4 6	2	22 16	26
New Jersey	83	10	128	221
New Mexico	9	0	21	30
New York	206	24	290	520
North Carolina	30	26	27	83
North Dakota	16	0	17	33
Ohio	62	12	75	149
Oklahoma	12	3	24	39
Oregon	43	5	60	108
Pennsylvania	282	38	262	582
Puerto Rico	42	4	25	71
Rhode Island	21	4	19	44
South Carolina	11	8	17	36
South Dakota	7	4	6	17
Tennessee	76	9	76	161
Texas	77	12	144	233
Utah	10	1	24	35
Vermont	9	1	10	20
Virginia	24	14	31	69
Virgin Islands	2	0	1	3
Washington	48	5	79	132
West Virginia	6	3	11	20
Wisconsin	41	7	71	119
Wyoming	1	0	0	1 0.400
Subtotal	2,422	496	3,184	6,102
Talmadge/Aiken	142	12	144	298
Total	2,564	508	3,328	6,400

Table 3-3 presents the number of meat and poultry slaughtering and/or processing plants that operated under Federal inspection as of September 30, 1991. Only federally inspected plants may sell their products in interstate or foreign commerce.

Numbers and Types of Plants Operating Under Federal Inspection as of September 30, 1991

Type of Plant	Meat Plants	Poultry Plants	Meat & Poultry Plants	Total
Slaughtering Processing Slaughtering & Processing	251 1,590 581	150 215 131	0 2,825 359	401 4,630 1,071
Subtotal	2,422	496	3,184	6,102
Talmadge-Aiken	142	12	144	298
Total	2,564	508	3,328	6,400

Table 3-4

Table 3-4 lists the number of meat and poultry plants inspected under Talmadge-Aiken agreements as of September 30, 1991. Talmadge-Aiken cooperative agreements permit State employees to carry out inspection in federally inspected plants.

Talmadge-Aiken Plants

State	Meat Plants	Poultry Plants	Meat & Poultry Plants	Total
Alabama	8	1	14	23
Alaska	2	o	0	2
Delaware	4	ő	4	8
Florida	3	o o	3	6
Georgia	23	o o	24	47
Hawaii	8	ő	5	13
Illinois	11	2	12	25
Indiana	1	ō	4	5
Louisiana	0	0	6	6
Mississippi	7	0	9	16
New Mexico	1	0	0	1
North Carolina	43	3	11	57
Oklahoma	2	0	10	12
South Carolina	0	0	1	1
Texas	6	1	19	26
Utah	2	2	4	8
Virginia	21	1	17	39
Wyoming	0	2	1	3
Total	142	12	144	298

Table 3-5 and figure 3-5 summarize the number of meat animals inspected at slaughter in federally inspected plants in selected fiscal years from 1980 through 1991. The species listed are those legally classified as meat food animals under the Federal Meat Inspection Act.

Livestock Federally Inspected

Species	1980	1985	1990	1991
Cattle Calves	30,883,000 2,252,000	33,295,000 2,983,000	33,033,653 1,871,562	29,619,712 1,463,005
Swine	90,038,000	78,218,000	83,855,817	81,297,724
Goats Sheep & Lambs Equines	115,000 5,087,000 339,000	114,000 5,826,000 143,000	229,554 5,140,798 315,192	190,955 4,448,621 236,467
Total	128,714,000	120,579,000	124,446,576	117,256,484

Exhibit 3-5

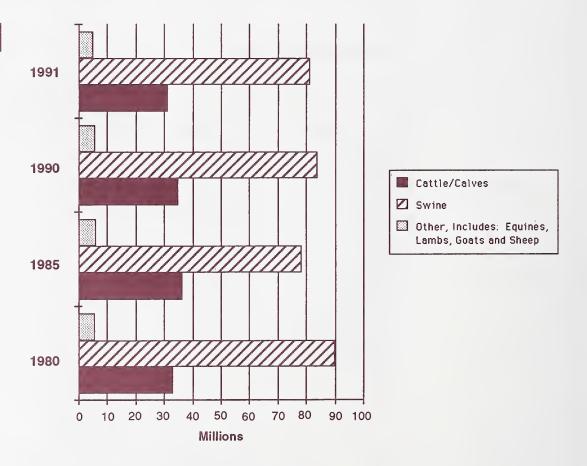


Table 3-6 and figure 3-6 summarize the number of poultry inspected at slaughter in federally inspected plants in selected fiscal years from 1980 through 1991. The species listed are legally classified as poultry for food purposes by the Poultry Products Inspection Act, except for the category "Other." That category includes rabbits and poultry species inspected under voluntary inspection programs. USDA is reimbursed for the costs of such voluntary inspection.

Poultry Federally Inspected

Class	1980	1985	1990	1991
Young Chickens	3,930,793,000	4,426,770,000	5,786,641,000	6,145,776,555
Mature Chickens	204,409,000	188,979,000	184,151,000	171,016,415
Fryer-roaster Turkeys	9,930,000	3,821,000	2,718,000	2,607,173
Young Turkeys	147,952,000	166,811,000	262,088,000	273,540,739
Mature Turkeys	1,334,000	1,399,000	2,246,000	2,261,426
Ducks	16,951,000	21,355,000	20,823,000	21,065,519
Other	1,572,000	1,107,000	3,576,000	5,484,840
Total	4,312,941,000	4,810,242,000	6,262,243,000	6,621,752,667

Exhibit 3-6

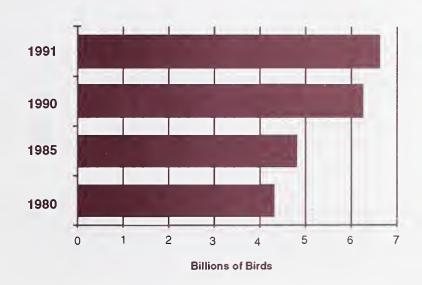


Table 3-7

Table 3-7 summarizes the number of meat and poultry product labels reviewed and either approved or not approved by the Food Labeling Division (FLD) of Regulatory Programs and Inspectors-in-Charge (IIC) during fiscal year 1991. Products may not be marketed until labels are approved.

Labels Reviewed

Activity	Number
Final/Temporary Sketches Labels not approved	87,663 59,938 19,939
Subtotal	167,540
Labels Approved by IIC Total Labels Processed	43,417 210,957

Table 3-8 summarizes the number of animal and poultry carcasses condemned during fiscal year 1991. Animals are condemned for disease, contamination, or adulteration during ante-mortem or post-mortem inspection.

Animal and Poultry Carcasses Condemned

Species or Class	Inspected Carcasses	Condemned Carcasses	Condemned as a Percentage of those Inspected
Cattle	29,619,712	144,578	0.49
Calves	1,463,005	28,017	1.92
Swine	81,297,724	196,392	0.24
Goats	190,955	995	0.52
Sheep	4,448,621	15,570	0.35
Equine	236,467	763	0.32
Total Meat	117,256,484	386,315	0.33
Young Chickens	6,145,776,555	64,465,315	1.05
Mature Chickens	171,016,415	7,026,828	4.11
Fryer-roaster Turkeys	2,607,173	22,311	0.86
Young Turkeys	273,540,739	2,354,568	0.86
Mature Turkeys	2,261,426	63,773	2.82
Ducks	21,065,519	303,534	1.44
Other	5,484,840	45,991	0.84
Total Poultry	6,621,752,667	74,282,320	1.12

Table 3-9

Table 3-9 summarizes enforcement actions taken in fiscal year 1991. Some of these actions were based on compliance reviews of meat and poultry handlers. Approximately 63,416 reviews were made in fiscal year 1991. Approximately 10,712 firms are periodically reviewed; risk categories determine the frequency of scheduled reviews. Random reviews are also conducted.

Enforcement Actions

Action	Number	Pounds
Detention of suspect products Monitoring of product recalls Cases received by Compliance (violation reports) Violation reports referred to Inspector General for further investigation Cases requiring consultation with General Counsel Letters of warning issued Convictions Administrative actions to withdraw inspection filed	802 27 1,360 3 27 1,842 35 4	16,756,771 1,052,768

Table 3-10 summarizes the number of samples analyzed by Science and Technology during fiscal year 1991. Over 2.1 million analyses were performed on these samples.

Laboratory Samples Analyzed

Category of Samples	Total
Food chemistry	48,528
Food microbiology and species	34,855
Chemical residues	*164,950
Antibiotic residues	**213,006
Pathology	8,051
Serology	1,183
Total	470,573

^{*}Includes 105,771 SOS (Sulfa-On-Site) tests.

Table 3-11

Table 3-11 summarizes the number of chemical safety evaluations of nonfood compounds and food contact materials and reviews of proprietary food processing additive and flavoring mixtures conducted by the Product Assessment Division of Regulatory Programs during fiscal year 1991.

Compounds and Proprietary Mixtures Reviewed

Activity	Number
Nonfood compounds Contact materials Proprietary Mixtures	9,804 476 5,193
Total	15,473

Table 3-12

Table 3-12 summarizes the number of blueprints and equipment drawings reviewed by the Facilities, Equipment and Sanitation Division of Science and Technology during fiscal year 1991.

Facilities and Equipment Reviewed

Activity	Number
Blueprints of plants	3,603
Drawings of equipment	3,600

^{**}Includes 112,258 STOP (Swab Test on Premises) and 83,967 CAST (Calf Antibiotic Sulfa Test) analyses.

Table 3-13 shows the number of persons trained by the Training and Development Division of Administrative Management during fiscal years 1990 and 1991.

Inspection Training

	1990	1991
Total Persons Trained Federal employees State employees Others	1,685 1,469 49 167	1,427 1,307 21 99

Table 3-14

Table 3-14 lists the dates the Department assumed inspection of meat and poultry products for intrastate sale in designated States. All plants in designated States come under Federal inspection, and their products can be sold in interstate commerce.

Dates USDA Assumed Intrastate Inspection

State	Meat	Poultry
Arkansas	06/01/81	01/02/71
California	04/01/76	04/01/76
Colorado	07/01/75	01/02/71
Connecticut	10/01/75	10/01/75
Georgia		01/02/71
Idaho	07/01/81	01/02/71
Kentucky	01/14/72	07/28/71
Maine	05/12/80	01/02/71
Maryland	04/01/91	04/01/91
Massachusetts	01/12/76	01/12/76
Michigan	10/03/81	01/02/71
Minnesota	05/16/71	01/02/71
Missouri	08/18/72	08/18/72
Nebraska	10/01/71	07/28/71
Nevada	07/01/73	07/01/73
New Hampshire	08/07/78	08/07/78
New Jersey	07/01/75	07/01/75
New York	07/16/75	04/11/77
North Dakota	06/22/70	01/02/71
Oregon	07/01/72	01/02/71
Pennsylvania	07/17/72	10/31/71
Rhode Island	10/01/81	10/01/81
South Dakota		01/02/71
Tennessee	10/01/75	10/01/75
Utah		01/02/71
Washington	06/01/73	06/01/73
West Virginia		01/02/71

⁻⁻⁻⁻ Indicates USDA has not assumed meat inspection in the State shown.

Table 3-15 summarizes the number of States at the end of fiscal year 1991 with intrastate inspection programs for meat (27) and poultry (23); the number of State full-time equivalent staff years during fiscal year 1991; and Federal funding assistance expended by States during fiscal year 1991. "M & P" indicates that the State conducted meat and poultry inspection programs. "M" after the name of the State indicates that the State conducted a meat inspection program, with its poultry program under Federal jurisdiction. In order to continue operating intrastate inspection programs, and in order to continue receiving Federal funding assistance, States must maintain inspection requirements at least equal to those of the Federal program.

State Inspection Program

			Regula	r Plants	;	Cus	tom Exe	empt Pla	ants	Full Time	FY 1991
State		Meat	Poultry	Meat & Poultry	Total	Meat	Poultry	Meat & Poultry	Total	Equivalent Staff Years	Federal Assistance*
Alabama	M&P	27	7	51	85	26	0	0	26	49.1	1 212 567
Alaska	M&P	13	0	5	18	0	0	1	1	10.6	1,213,567 310,792
Arizona	M&P	58	2	0	60	33	0		33	24.3	490,204
Delaware	M&P	1	0	3	4	3	1	1	5	12.0	301,710
Florida	M&P	120	2	56	178	48	0	0	48	114.0	1,986,603
Georgia	M	107	0	0	107	27	0	0	27	108.0	
Hawaii	M&P	37	5	22	64	0	0	0	0	49.5	2,479,909
Illinois	M&P	261	27	92	380	18	3	0	21	176.3	1,168,472
Indiana	M&P	61	7	58	126	30	6	1	37	95.0	3,939,623
lowa	M&P	147	8	0	155	122	17	4	143	40.0	1,785,573 968,914
Kansas	M&P	147	8	8	163	13	'/	2	16	56.0	,
Louisiana	M&P	106	5	1	112	55		0	55	81.0	1,152,714
Maryland**	M&P	38	7	4	49	17	6	1	24	22.2	1,5 7 2,744 474,531
Mississippi	M&P	25	3	30	58	17	2	0	21	62.0	· ·
Montana	M&P	15	1	12		141	28	0	169	13.2	938,394
New Mexico	M&P		0		28 38	16		0	17		268,442
North Carolina	M&P	25	ı	13			1	"	48	14.0	354,890
Ohio	M&P	174	14	0	188	48	0	0		132.3	2,557,050
	M&P	170	33	72	275	79	21	0	100	177.0	4,083,355
Oklahoma	M&P	68	5	7	80	77	0	0	77	74.0	1,597,528
South Carolina		102	9	41	152	0	0	0	0	57.0	963,169
South Dakota	M	61	0	0	61	50	0	0	50	26.0	337,815
Texas	M&P	293	12	32	337	115	4	0	119	252.0	4,157,238
Utah	М	38	0	3	41	55	2	0	57	32.5	637,993
Vermont	M&P	13	3	0	16	8	2	0	10	14.3	265,393
Virginia	M&P	12	2	6	20	119	0	1	120	51.5	1,275,405
West Virginia	М	34	0	0	34	57	0	0	57	25.0	450,709
Wisconsin	M&P	149	9	96	254	23	2	6	31	96.0	2,133,099
Wyoming	M&P	28	0	0	28	43	0	0	43	14.9	231,164
Total		2,330	169	612	3,111	1,242	96	17	1,355	1,879.7	38,097,000
California*** Minnesota***		0	0	0	0				360 340	1 2	103,465 100,637

^{*} All Federal assistance amounts are estimates.

^{**} Designated March 31, 1991

^{***} Official plants are under Federal jurisdiction. Custom Exempt facilities reviewed under State jurisdiction.

Figure 3-16 shows, for fiscal year 1991, the major countries receiving U.S. meat exports, the volume by percentage, and the dollar value of the products.

Major Receivers of U.S. Meat Exports

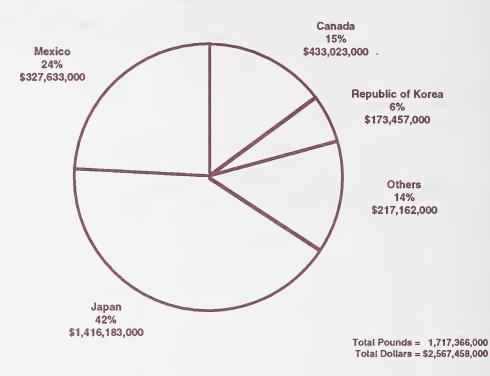


Exhibit 3-17

Figure 3-17 shows, for fiscal year 1991, the major countries and areas receiving U.S. poultry exports, the volume by percentage, and the dollar value of the products.

Major Receivers of U.S. Poultry Exports

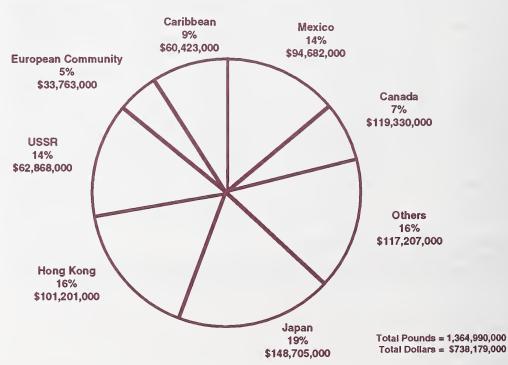


Table 3-18 shows the volume of U.S. meat exports for fiscal years 1990 and 1991, the percentage change, and the dollar value for fiscal year 1991.

Change in Meat Exports

A	Fiscal Year 1990	Fiscal Year 1991	Percentage	Fiscal Year 1991
Area or Country	Thousands of Pounds	Thousands of Pounds	Change from FY 1990	\$ Value (Thousands)
North America				
Canada	181,293	249,692	38	433,023
Mexico	268,031	407,901	52	327,633
*Subtotal Caribbean	449,324	657,593	46	760,656
Bahamas	14,445	11,506	-20	20,192
Bermuda	5,289	3,605	-32	8,611
Netherlands Antilles	6,521	6,652	2	11,229
Others	27,524	27,448	0	17,656
*Subtotal	53,779	49,211	-8	57,688
Central America				
Belize	2,202	1,698	-23	1,599
Costa Rica	1,415	428	-70	167
Honduras	373	306	-18	253
Panama	3,056	2,844	-7	1,905
Others *Subtotal	657 7,703	1,074 6,350	63	783 4,706
South America	1,103	0,330	-10	4,700
Argentina	115	282	145	207
Brazil	8,649	10,033	16	3,286
Chile	1,091	858	-21	224
Colombia	1,819	3,023	66	1,614
Venezuela	3,871	13,530	250	6,974
Others	2,531	4,315	70	1,323
*Subtotal	18,076	32,041	77	13,629
European Community	10.500	0.000	0.5	
Belgium-Luxembourg Denmark	43,503	2,209	-95	750
France	1,892	849 4,293	-55 -91	1,478
Germany	50,408 5,628	2,231	-60	2,751 4,295
Greece	68	22	-68	108
Ireland	132	0	-100	100
Italy	10,650	384	-96	506
Netherlands	20,465	2,814	-86	3,033
Portugal	9	2	-76	4
Spain	3,580	3,951	10	1,723
United Kingdom	21,878	11,131	-49	3,341
*Subtotal	158,213	27,887	-82	17,990
Other Western Europe	1.000	4 477	00	0.070
Austria	1,828	1,177	-36 -39	6,370
Sweden Switzerland	4,279 6,645	2,606 2,408	-39	5,419 5,81 9
Others	461	115	-75	180
*Subtotal	13,213	6,306	-52	17,789
USSR	19,874	16,434	-17	8,177
Middle East	,			
Egypt	32,256	21,814	-32	5,117
Iraq	0	0	0	0
Israel	1,784	836	-53	619
Kuwait	937	163	-83	397
Saudi Arabia	6,166	8,714	41	13,106
Others *Subtotal	1,349	2,390 33,917	77 -20	5,194 24,435
Africa	42,492 8,104	26,385	226	8,089
Asia	0,104	20,000	220	0,000
Hong Kong	18,761	15,594	-17	24,663
Japan	813,112	716,270	-12	1,416,183
Korea, Republic of	67,613	106,486	57	173,457
Singapore	3,915	3,766	-4	7,709
Taiwan	9,118	8,176	-10	18,370
Others	6,521	7,217	11	9,473
*Subtotal	919,040	857,509	-7	1,649,855
Oceania	4,279	3,733	-13	4,446
Total	1,694,097	1,717,366	1	2,567,458

Source: U.S. Department of Commerce, Bureau of the Census. In recent years, all U.S. agricultural exports to Canada have been underreported. This discrepancy is officially recognized by both governments.

^{*}Subtotals may not add up correctly due to rounding.

Table 3-19 shows the volume of U.S. poultry exports for fiscal years 1990 and 1991, the percentage change, and the dollar value for fiscal year 1991.

Change in Poultry Exports

	Fiscal Year 1990	Fiscal Year 1991	Percentage	Fiscal Year 1991
Area or Country	Thousands of Pounds	Thousands of Pounds	Change from FY 1990	\$ Value (Thousands)
North America				
Canada	109,705	102,107	-7	119,330
Mexico	111,182	189,266	70	94,682
*Subtotal	220,887	291,373	32	214,012
Bahamas	6,021	5,102	-15	3,595
Bermuda	4,896	5,400	10	4,632
Netherlands Antilles	23,812	25,876	9	14,751
Others	93,892	86,835	-8	37,445
*Subtotal	128,621	123,213	-4	60,423
Central America				
Belize Costa Rica	137	57	-58	69
Honduras	2 29	1,096	3,679	5 409
Panama	780	745	-4	678
Others	368	10,577	2,774	4,232
*Subtotal	1,316	12,478	848	5,394
South America				
Brazil	47	128	172	40
Chile	126	357	183	137
Colombia Venezuela	1,565	1,649 1,422	5	751
Others	3,920	12,595	221	861 4,789
*Subtotal	5,658	16,152	185	6,577
European Community	0,000	10,102	100	0,0.7
Belgium-Luxembourg	3,490	714	-80	271
Denmark	88	49	-45	80
France	6,645	6,280	-5	2,264
Germany	12,460	12,771	2 23	3,429
Greece Ireland	946 198	1,164	-100	825 0
Italy	262	143	-45	144
Netherlands	5,527	8,659	57	10,469
Portugal	1,742	5,371	208	1,950
Spain	19,634	29,770	52	11,846
United Kingdom	4,381	4,622	5	2,484
*Subtotal	55,373	69,543	26	33,763
Other Western Europe Austria	49	4	-91	3
Sweden	49	35	-20	46
Switzerland	1,488	1,122	-25	963
Others	346	236	-32	191
*Subtotal	1,927	1,398	-27	1,203
USSR	274,501	185,105	-33	62,868
Middle East	45	4 0 4 0	2 222	400
Egypt Kuwait	15 4,321	1,248 653	8,220 -85	490 614
Saudi Arabia	13,856	24,991	80	16,335
Others	9,343	37,664	303	22,022
*Subtotal	27,535	64,556	134	39,462
Africa	3,202	11,402	256	5,531
Asia				40.004
Hong Kong	205,830	221,953	8	101,201
Japan Karaa Banublia of	220,277 5,829	259,652 11,532	18 98	148,705 9,369
Korea, Republic of Singapore	52,584	52,382	-1	29,569
Taiwan	708	833	18	736
Others	5,959	10,527	77	4,183
*Subtotal	491,187	556,879	13	293,764
Oceania	29,612	32,890	11	15,183
Total	1,239,819	1,364,990	10	738,179

Source: U.S. Department of Commerce, Bureau of the Census. In recent years, all U.S. agricultural exports to Canada have been underreported. This discrepancy is officially recognized by both governments.

^{*}Subtotals may not add up correctly due to rounding.

Foreign Program Review and Port-of-Entry Reinspection

nformation on foreign program review and import reinspection is presented on a calendar year basis, as required by the Federal Meat Inspection Act. Information on both meat and poultry imports is included. Although no formal report is required by the Poultry Products Inspection Act, it should be noted that poultry imports are controlled under regulations comparable to those applied to meat imports. Only limited quantities of poultry products, mainly specialty items, are imported into the United States.

Foreign Program Review

Federal meat and poultry inspection laws require countries exporting meat or poultry to the United States to impose inspection requirements at least equal to U.S. requirements. The Foreign Programs Division evaluates foreign meat and poultry inspection programs through system reviews, including onsite reviews of plants in the eligible country.

System reviews begin with an evaluation of the laws, policies, and operation of the inspection system in each country that is eligible to export products to the United States. FSIS now evaluates country controls in the following risk areas: disease, residues, contamination, processing, and economic fraud.

Onsite observation of exporting plants and system operations, including facilities, equipment, laboratories, and training, is also conducted. FSIS foreign program officers and other technical experts perform these reviews in eligible exporting countries. An addendum to this report, Foreign Countries and Plants Certified to Export Meat and Poultry to the United States, summarizes data from 1991 reviews.

Port-of-Entry Reinspection

Import reinspection is a check on the effectiveness of foreign inspection systems in ensuring safe, wholesome, and accurately labeled products that meet U.S. standards. FSIS uses data from import reinspection to evaluate foreign inspection systems.

About 80 import inspection personnel carried out import reinspection during 1991 at 150 official import establishments.

Inspection Certificates

An inspection certificate issued by the responsible official of the exporting country must accompany each shipment of meat or poultry products offered for entry into the United States.

Certificates identify products by country and plant of origin, destination, shipping marks, and amounts. They certify that the products received ante-mortem and post-mortem inspection; that they are wholesome, not adulterated or misbranded; and that they otherwise comply with U.S. requirements.

Automated Import Information System

A description of each lot arriving at U.S. ports is entered into the Automated Import Information System (AIIS). This computerized system centralizes reinspection and shipping information from all ports, allowing FSIS to determine reinspection requirements based on the compliance history of each country and establishment. Information stored in the system includes:

- -- Amount and kind of products offered from each country and establishment and the amount refused entry;
- -- Results of certification and labeling reinspections;
- -- Results of organoleptic reinspection for defects such as bone, hair, and cartilage;
- -- Results of laboratory samples tested for residues, proper cooking temperatures, and economic and other adulterants.

To ensure that representative samples are selected, statistical sampling plans are applied to each lot of product to be reinspected. The sampling plans and criteria for acceptance or rejection of imports are the same as those applied to U.S. meat and poultry products prepared under Federal inspection.

In order to export to the United States, a foreign country must have a residue control program with standards at least equal to U.S. standards. Statutes require that foreign residue control programs include random sampling of animals at slaughter, the use of approved sampling and analytical methods, testing target tissues for specific compounds, and testing for compounds identified as potential contaminants by USDA or the origin country.

Laboratory Sampling

Imported meat and poultry products are sampled for food chemistry and microbiological hazards as well as chemical and drug residues. As for domestic inspection, shipments are not held pending laboratory test results unless there is some reason to suspect contamination.

During 1991, IP expanded the sampling program for *Listeria monocytogenes* and *Salmonella* to include a total of 600 samples from 20 different imported meat and poultry products. No positive results were found.

Also during 1991, 18,479 residue samples of imported product were analyzed for drug and chemical residues. In only 7 instances were samples found to contain violative levels.

If a laboratory reports a residue or microbiological violation on a sample that has otherwise passed reinspection, efforts are made to locate any part of the shipment that is still available. Products recovered may not be used for human food.

Foreign Plants Authorized to Export Products to the U.S. and Number of Inspectors

Country	Authorized 1/1/91	Plants Decertified	Plants Granted Authorization	Plants Reinstated	Authorized Plants on 12/31/91	Licensed Foreign Inspectors
Argentina	25	3	0	2	24	256
Australia	137	31	13	11	130	969
Belgium	6	0	0	0	6	45
Brazil	0	0	27	0	27	338
Canada	601	7	23	0	617	1,802
Costa Rica	4	0	2	0	6	36
Czechoslovakia	2	0	0	0	2	37
Denmark	124	7	5	0	122	1,056
Dominican Republic*	5	5	0	5	5	24
El Salvador*	1	0	0	0	1	0
Finland	7	0	0	0	7	40
France	75	0	1	0	76	0
Germany	0	0	12	0	12	31
Great Britain	2	0	0	0	2	10
Guatemala	4	1	0	1	4	18
Honduras	5	2	2	0	5	21
Hong Kong	1	0	0	0	1	6
Hungary	8	0	3	0	11	138
Ireland	7	1	0	0	6	105
Israel	24	0	0	0	24	46
Italy	5	2	50	0	53	36
Japan	3	0	0	0	3	24
Mexico	11	1	1	0	11	52
Netherlands	0	0	27	0	27	248
New Zealand	85	0	1	0	86	960
Norway	0	0	0	0	0	13
Poland	30	1	0	0	29	713
Romania	8	5	6	3	12	214
Sweden	22	1	0	0	21	63
Switzerland	13	0	0	0	13	26
Uruguay	23	3	3	0	23	230
Yugoslavia	14	1	2	0	15	121
Total	1,252	71	178	22	1,381	7,678

^{*} Did not receive residue certification for 1992

Residue Testing Capability of Top Ten Exporting Countries

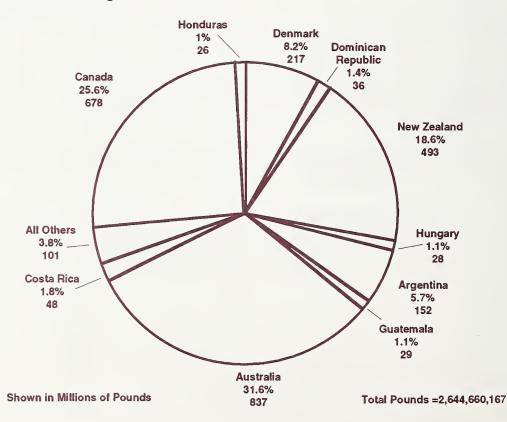
Country	Chlorinated Hydrocarbons	PCB's	Organo- Phosphates	Antiblotics	Chloramphenicol	Hormones	Trace Elements	Sulfonamides
Argentina	152,940	152,940	414	2,621	397	4,792	4,382	610
Australia	14,131	14,131	14,131	3,653	1,206	3,060	3,236	2,802
Canada	2,290	2,290	2,290	40,677	863	2,139	11,282	67,750
Costa Rica	825	825	41	48	35	38	114	59
Denmark	232	232	Cyclically	17,409	299	1,000	558	3,484
Dominican Republic*	914	914	10	49	49	32	33	49
Guatemala	3,380	2,054	42	45	53	44	226	93
Honduras	4,540	4,540	19	55	55	27	69	133
Hungary	1,635	1,635	646	16,370	1,188	450	3,206	2,631
New Zealand	9,409	1,570	315	5,246	611	5,495	1,595	5,152

^{*} Did not receive residue certification for 1992

Exhibit 4-3

Figure 4-3 shows the sources of products exported to the U.S. during 1991. Ten countries were responsible for 96 percent of the products.

Source of Product Imported into the U.S. by Volume and Percentage



Types of Products Imported Into the U.S. by Percentage

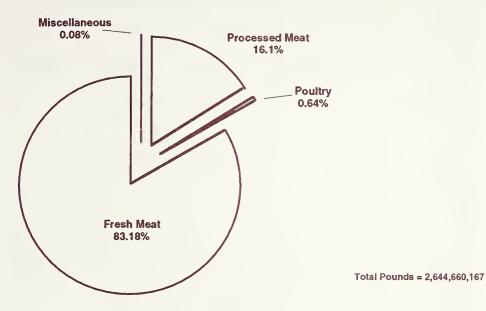


Table 4-5

Table 4-5 and tables 4-5A through 4-5G show the volume of products in pounds, by major product category, imported into the U.S. from each eligible country in 1991.

Imported Meat and Poultry Passed for Entry for All Products

Country of Origin	Pounds Passed for Entry	
Argentina	151,811,888	
Australia	836,897,565	
Belgium	7,006,730	
Brazil	4,066,656	
Canada	678,037,403	
Costa Rica	47,876,658	
Czechoslovakia	716,328	
Denmark	217,299,934	
Dominican Republic	36,388,717	
Finland	5,531,177	
France	335,013	
Germany	154,944	
Guatemala	28,524,143	
Honduras	26,053,177	
Hong Kong	1,098,240	
Hungary	27,809,518	
Ireland	784,129	
Israel	925,044	
Italy	1,159,101	
Japan	9,340	
Mexico	1,380,371	
Netherlands	20,644,254	
New Zealand	492,709,589	
Poland	14,955,058	
Romania	67,168	
Sweden	14,658,840	
Switzerland	50,900	
Uruguay	12,653,123	
Yugoslavia	15,055,159	
Total Pounds	2,644,660,167	

Table 4-5 A Fresh Beef - Passed for Entry 1991

Country of Origin	Misc. Fresh	Manufacturing	Carcasses & Cuts	Head Meat & Tongue	Edible Organs	Total
Argentina		0			0	
Australia	0 100 073	678,585,354	105 580 600	0	896,348	704 700 504
Belgium	3,199,273	070,303,334	105,582,620	6,469,909	090,346	794,733,504
Brazil	0	0	0	0	0	0
Canada	50,000,040	77,380,990	52,774,672	3.391.821	3,131,829	188.679.554
Costa Rica	52,000,242				92,917	
Czechoslovakia	148	31,840,032	15,787,883	13,620	92,917	47,734,600
Denmark	0	49.680	0	0		40.000
Dominican Republic	0		•	0	67.555	49,680
Finland	0	23,392,667	12,876,105	· ·	67,555	36,336,327
France	0	1,861,343	0	0	0	1,861,343
Germany	0	0	0	0	0	0
Guatemala	0	0	0	0	0	00 504 440
Honduras	0	18,103,517	10,420,626	0	0	28,524,143
	0	18,795,054	7,238,188	0	19,935	26,053,177
Hong Kong	0	0	0	0	0	0
Hungary	0	0	0	0	0	0
reland	0	0	0	0	0	0
Israel	0	0	0	0	0	0
Italy	0	0	0	0	0	0
Japan	0	0	9,340	0	0	9,340
Mexico	0	728,956	639,113	0	0	1,368,069
Netherlands	0	0	0	0	0	0
New Zealand	292,447	434,018,719	36,104,106	1,680,245	18,861	472,114,378
Poland	0	0	0	0	0	0
Romania	0	0	0	0	0	0
Sweden	0	7,037,036	95,780	0	0	7,132,816
Switzerland	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0
Yugoslavia	0	0	0	0	0	0
Total Pounds	55,492,110	1,291,793,348	241,528,433	11,555,595	4,227,445	1,604,596,931

Table 4-5 BProcessed Beef - Passed for Entry 1991

Country of Origin	Cured Beef	Cooked Beef	Corned Beef	Other Canned	Misc. Processed	Total
Argentina	202,434	50,002,927	65,484,607	35,553,359	568,561	151,811,888
Australia	0	0	140,778	1,200,667	0	1,341,445
Belgium	0	0	0	0	0	0
Brazil	0	662,927	2,909,177	340,432	154,120	4,066,656
Canada	1,865	4,130	0	1,165,548	9,785,128	10,956,671
Costa Rica	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0
Denmark	0	0	0	0	0	0
Dominican Republic	0	0	0	0	0	0
Finland	0	0	0	0	0	0
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0
Honduras	0	0	0	0	0	0
Hong Kong	0	0	0	0	0	0
Hungary	0	0	0	144,000	0	144,000
Ireland	0	0	0	0	0	0
Israel	0	0	0	0	0	0
Italy	0	0	0	97,471	0	97,471
Japan	0	0	0	0	0	0
Mexico	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0
New Zealand	0	0	1,386,758	12,592	0	1,399,350
Poland	0	0	0	0	0	0
Romania	0	0	0	0	0	0
Sweden	0	4,374	0	2,680	24,255	31,309
Switzerland	0	0	0	0	23,272	23,272
Uruguay	0	1,258,406	6,250,705	3,201,795	1,892,735	12,603,641
Yugoslavia	0	0	0	559,760	0	559,760
Total Pounds	204,299	51,932,764	76,172,025	42,278,304	12,448,071	183,035,463
				Grand Tota	l for Beef	1,787,632,394

Table 4-5 C Fresh Pork - Passed for Entry 1991

Country of Origin	Misc. Fresh	Manufacturing	Carcasses & Cuts	Edible Organs	Total
Argentina	0	0	0	0	0
Australia	0	539,811	1,198,776	0	1,738,587
Belgium	0	0	0	0	0
Brazil	0	0	0	0	0
Canada	184,453,250	44,895,492	160,873,123	15,391	390,237,256
Costa Rica	0	0	0	0	0
Czechoslovakia	0	0	0	0	0
Denmark	0	81,810,644	40,065,111	0	121,875,755
Dominican Republic	0	52,390	0	0	52,390
Finland	0	2,303,314	1,366,520	0	3,669,834
France	0	0	0	0	0
Germany	0	0	0	0	0
Guatemala	0	0	0	0	0
Honduras	0	0	0	0	0
Hong Kong	0	0	0	0	0
Hungary	0	0	0	0	0
Ireland	0	163,210	63,222	0	226,432
Israel	0	0	0	0	0
Italy	0	0	0	0	0
Japan	0	0	0	0	0
Mexico	0	0	0	0	0
Netherlands	0	0	0	0	0
New Zealand	0	0	0	0	0
Poland	0	0	0	0	0
Romania	0	0	0	0	0
Sweden	0	713,409	6,340,105	0	7,053,514
Switzerland	0	0	0	0	0
Uruguay	0	0	0	0	0
Yugoslavia	0	0	0	0	0
Total Pounds	184,453,250	130,478,270	209,906,857	15,391	524,853,768

Table 4-5 D Processed Pork - Passed for Entry 1991

Country of Origin	Cured Pork	Sausage	Other Cooked/ Cured	Ham	Picnic Ham	Chopped Ham Luncheon	Other Canned	Total
Argentina	0	0	0	0	0	0	0	0
Australia	Ö	Ö	l ő	o	0	o	l ŏ	0
Belgium	412,386	0	0	2,786,595	3,807,749	0	0	7,006,730
Brazil	0	0	0	0	' ' 0	0	0	
Canada	17,155,962	3,150,420	39,087,424	67,970	0	0	113,384	59,575,160
Costa Rica	0	0	' ' 0	0	0	0	0	0
Czechoslovakia	0	0	0	716,328	0	Ó	0	716,328
Denmark	3,763,266	3,722,320	70,930	54,182,761	18,089,969	15,319,959	165,342	95,314,547
Dominican Republic	0	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0	0
France	4,480	0	2,087	46,242	0	0	153,992	206,801
Germany	78,112	0	0	0	0	0	12,007	90,119
Guatemala	0	0	0	0	0	0	0	0
Honduras	0	0	0	0	0	0	0	0
Hong Kong	0	0	0	0	0	0	0	0
Hungary	2,322,427	923,735	0	14,301,770	7,650,416	1,293,816	1,173,354	27,665,518
Ireland	226,412	225,510	0	0	0	0	105,775	557,697
Israel	0	0	0	0	0	0	0	0
Italy	1,061,630	0	0	0	0	0	0	1,061,630
Japan	0	0	0	0	0	0	0	0
Mexico	0	0	12,302	0	0	0	0	12,302
Netherlands	2,572,887	0	0	2,973,363	4,291,748	10,643,283	162,973	20,644,254
New Zealand	0	0	0	0	0	0	0	0
Poland	0	0	0	13,467,252	1,202,956	284,850	0	14,955,058
Romania	0	0	0	65,208	0	1,960	0	67,168
Sweden	95,714	0	0	0	0	0	0	95,714
Switzerland	22,439	0	0	0	0	0	5,189	27,628
Uruguay	0	0	0	0	0	0	0	0
Yugoslavia	114	0	0	12,509,869	1,949,436	0	35,980	14,495,399
Total Pounds	27,715,829	8,021,985	39,172,743	101,117,358	36,992,274	27,543,868	1,927,996	242,492,053
					Gran	d Total for P	ork	767,345,821

Table 4-5 E Veal - Passed for Entry 1991

Country of Origin	Manufacturing	Carcasses & Cuts	Misc. Fresh	Processed	Total
Argentina	0	0	0	0	0
Australia	5,528,250	2,329,220	0	0	7,857,470
Belgium	0	0	0	0	0
Brazil	0	0	0	0	0
Canada	39,465	5,920,470	6,197,501	9,765	12,167,201
Costa Rica	118,184	22,794	0	0	140,978
Czechoslovakia	0	0	0	0	0
Denmark	0	0	0	0	0
Dominican Republic	0	0	0	0	0
Finland	0	0	0	0	Ö
France	0	0	0	0	0
Germany	0	0	0	Ó	0
Guatemala	0	0	0	Ó	0
Honduras	0	0	0	0	0
Hong Kong	0	0	0	0	0
Hungary	0	0	0	0	0
Ireland	0	0	0	Ö	0
Israel	0	0	0	Ó	0
Italy	0	0	0	0	Ō
Japan	0	0	0	0	0
Mexico	0	0	0	0	O
Netherlands	0	0	0	0	0
New Zealand	3,349,666	2,938,133	0	0	6,287,799
Poland	0	0	0	0	0
Romania	0	0	0	0	0
Sweden	1,764	0	0	Ŏ	1,764
Switzerland	0	0	Ó	0	0
Uruguay	0	0	0	Ō	Ō
Yugoslávia	0	0	Ō	0	ő
Total Pounds	9,037,329	11,210,617	6,197,501	9,765	26,455,212

Table 4-5 F Mutton and Lamb; Horsemeat and Goat - Passed for Entry 1991

		Mutton and Lamb					
Country of Origin	Manufacturing	Carcasses & Cuts	Edible Organs	Processed	Total	Horsemeat Carcasses	Goat Fresh
Argentina	0	0	0	0	0	0	0
Australia	1,095,552	25,878,332	579,391	159,499	27,712,774	0	3,513,785
Belgium	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0
Canada	65,818	0	0	0	65,818	37,391	0
Costa Rica	0	0	0	0	0	0	0
Czechoslovakia	0	0	0	0	0	0	0.
Denmark	0	0	0	0	0	0	0
Dominican Republic	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
France	0	0	0	0	Ö	0	0
Germany	0	0	0	0	Ö	0	0
Guatemala	0	0	0	o	0	0	0
Honduras	o l	0	0	o	ŏ	0	0
Hong Kong	0	0	0	o	Ŏ	0	0
Hungary	o l	0	Ö	o l	ŏ	0	0
Ilreland	0	0	0	l ol	ő	0	0
Israel	o l	0	0	ا ة ا	ŏ	Ö	0
Italy	ŏ	0	Ö	Ö	ŏ	l	0
Japan	0	0	0	l ŏ l	Ö	0	0
Mexico	o l	Ō	l ő	o l	Ŏ	0	0
Netherlands	0	0	0	Ö	Ö	0	0
New Zealand	676,406	10,920,370	880,129	46,516	12,523,421	0	384,641
Poland	0	0	0	0	0	0	0
Romania	0	0	o	o l	ő	0 1	0
Sweden	0	Ō	Ö	0	Ö	o l	0
Switzerland	o l	Ő	ő	ŏ	Ô	Ö	0
Uruguay	ŏ	Ŏ	ŏ	49,482	49,482	0	0
Yugoslavia	ŏ	ŏ	ŏ	0	0	0	0
Total Pounds	1,837,776	36,798,702	1,459,520	255,497	40,351,495	37,391	3,898,426

Table 4-5 G Poultry and Miscellaneous Combinations - Passed for Entry 1991

Country of Origin	Country of Origin Fresh Poultry		Total Poultry	Miscellaneous Combinations*
Argentina	0	0	0	0
Australia	0	ō	ll ő	ŏ
Belgium	0	ĺ	ll ő	Ŏ
Brazil	0	l ŏ	1	Ö
Canada	3,279,360	11,606,428	14,885,788	1,432,564
Costa Rica	0,2,0,000	0	14,000,700	1,080
Czechoslovakia	o o	l ő	ll ő	1,000
Denmark	i o	l ö	ll ő	59,952
Dominican Republic	0	ō	ll ő	00,002
Finland	0	o o	ا ا	Ö
France	0	46,818	46,818	81.394
Germany	o o	0	1 40,010	64,825
Guatemala	Ŏ	l ö	ا	0 7,020
Honduras	o o	0	ll ő	o
Hong Kong	Ö	1,098,240	1,098,240	l o
Hungary	Ŏ	0	1,000,210	0
Ireland	o	l o	ll ŏ	l ŏ
Israel	o	925,044	925,044	Ŏ
Italy	Ó		0	0
Japan	0	Ö	ll ö	O
Mexico	O	0	ll ő	O
Netherlands	0	0	0	O
New Zealand	Ö	0	ll 0	Ŏ
Poland	0	0	ll o	0
Romania	Ö	0	ll o	O
Sweden	O	0	ll ö	343,723
Switzerland	Ö	0	ll ö	0
Uruguay	0	0	0	0
Yugoslavia	0	0	0	0
Total Pounds	3,279,360	13,676,530	16,955,890	1,983,538

^{*} Processed Varied Combination (more than one species).

Table 4-6

Table 4-6 and tables 4-6A through 4-6G show the volume of products, by major product category, condemned and/or refused entry into the United States from each eligible country in 1991.

Imported Meat and Poultry Condemned and/or Refused Entry for All Products

Country of Origin	Pounds Refused Entry	
Argentina	685,314	
Australia	2,339,455	
Belgium	10,228	
Brazil	2,856	
Canada	3,158,870	
Costa Rica	97,415	
Czechoslovakia	0	
Denmark	1,671,232	
Dominican Republic	189,307	
Finland	44,218	
France	567	
Germany	21	
Guatemala	400,596	
Honduras	20,532	
Hong Kong	0	
Hungary	1,711	
Ireland	5,469	
Israel	727	
Italy	12,633	
Japan	0	
Mexico	3,674	
Netherlands	100,982	
New Zealand	1,546,423	
Poland	1,206	
Romania	0	
Sweden	56,556	
Switzerland	0	
Uruguay	293,794	
Yugoslavia	253,334	
Total Pounds	10,897,120	

Table 4-6 A Fresh Beef - Refused Entry 1991

Country of Origin	Misc. Fresh	Manufacturing	Carcasses & Cuts	Head Meat & Tongue	Edible Organs	Total
Argentina	0	0	0	0	0	0
Australia	52,590	1,047,550	234,561	41,004	98,753	1,474,458
Belgium	0	0	. 0	0	0	0
Brazil	0	0	0	0	0	0
Canada	113,543	1,409,532	0	83,700	336	1,607,111
Costa Rica	0	50,640	40,170	0	6,605	97,415
Czechoslovakia	0	0	0	0	0	0
Denmark	0	0	0	0	0	0
Dominican Republic	0	138,151	48,325	0	2,831	189,307
Finland	0	44,160	0	0	0	44,160
France	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Guatemala	0	310,029	90,567	0	0	400,596
Honduras	0	18,300	2,232	0	0	20,532
Hong Kong	0	0	0	0	0	l o
Hungary	O	0	0	0	0	l o
Ireland	0	0	0	0	0	0
Israel	0	0	0	0	0	l 0
Italy	0	0	0	0	0	l 0
Japan	0	0	0	0	0 1	l 0
Mexico	0	492	3,182	0	0	3,674
Netherlands	0	0	0	0	0	0
New Zealand	998	1,238,789	102,914	2,760	0	1,345,461
Poland	0	0	0	0	0	0
Romania	0	0	Ō	0	0	0
Sweden	0	52,761	0	0	0	52,761
Switzerland	0	0	0	0	0	0
Uruguay	0	0	0	0	0	0
Yugoslavia	0	0	Ō	0	0	0
Total Pounds	167,131	4,310,404	521,951	127,464	108,525	5 ,23 5, 475

Table 4-6 B Processed Beef - Refused Entry 1991

Country of Origin	Cured Beef	Cooked Beef	Corned Beef	Other Canned	Misc. Processed	Total
Argentina	0	222,293	266,648	191,943	4,430	685,314
Australia	0 1	0	0	3,854	0	3,854
Belgium	o l	Õ	o o	0,001	Ö	0,004
Brazil	0	0	2,856	l o	0	2,856
Canada	ŏ	Ö	2,000	l o	798	798
Costa Rica	l ŏ l	0	Ō	0	0	0
Czechoslovakia	l ŏ l	Ŏ	Ö	Ŏ	0	0
Denmark	l ŏ l	0	ō	o	0	ا ا
Dominican Republic	0	0	Ō	o	0	0
Finland	O	Ö	Ö	Ö	0	0
France	o	0	O	l o	0	0
Germany	0	0	0	l o	0	0
Guatemala	0	0	0	0	0	0
Honduras	0	Ō	o	Ō	0	ll 0
Hong Kong	l	0	0	0	0	0
Hungary	0	0	0	0	0	0
Ireland	0	0	0	0	0	0
Israel	0	0	0	0	0	o
Italy	0	0	0	0	0	o
Japan	0	0	0	0	0	0
Mexico	0	0	0	0	0	0
Netherlands	0 1	0	0	0	0	0
New Zealand	0	0	4,340	0	0	4,340
Poland	0	0	0	0	0	0
Romania	0	0	0	0	0	0
Sweden	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0
Uruguay	0	24	60	220,056	73,654	293,794
Yugoslavia	0	0	0	468	0	468
Total Pounds	0	222,317	273,904	416,321	78,882	991,424
				Grand Total fo	r Beef	6,226,899

Table 4-6 C Fresh Pork - Refused Entry 1991

Country of Origin	Misc. Fresh	Manufacturing	Carcasses & Cuts	Edible Organs	Total
Argentina	0	0	0	0	0
Australia	0	2,040	Ŏ	0	2,040
Belgium	0	0	0	Ö	
Brazil	O	l o l	Õ	0	l ő
Canada	442,972	366,688	514,564	Ö	1,324,224
Costa Rica	0	0	0	0	,
Czechoslovakia	0	l o l	Ŏ	o	0
Denmark	0	880,062	643,108	0	1,523,170
Dominican Republic	0	0	0	l o	0
Finland	0	30	28	0	58
France	Ö	0	0	0	0
Germany	0	o	0	0	Ŏ
Guatemála	Ö	o	0	l 0	Ŏ
Honduras	Ō	0	Ö	0	Ŏ
Hong Kong	Ö	o	Ō	Ö	Ō
Hungary	Ö	o l	Ö	0	l o
Ireland	0	992	52	l o	1,044
Israel	l ō	0	0	l 0	0
Italy	l o	o	o o	l o	l ő
Japan	0	0	0	0	0
Mexico	0	0	Ō	l o	l ö
Netherlands	Ō	0	Ô	Ö	l o
New Zealand	0	0	o o	0	l ö
Poland	o	o	Õ	O	l ŏ
Romania	0	l	0	0	l ö
Sweden	Ō	60	3,051	0	3,111
Switzerland	Ö	0	0	Ö	0
Uruguay	l ŏ	ŏ	ŏ	0	l ő
Yugoslavia	ō	o o	ō	ō	o
Total Pounds	442,972	1,249,872	1,160,803	0	2,853,647

Table 4-6 D Processed Pork - Refused Entry 1991

Country of Origin	Cured Pork	Sausage	Other Cooked/ Cured	Ham	Picnic Ham	Chopped Ham Luncheon	Other Canned	Total
Argentina	0	0	0	0	0	0	0	0
Australia	l ŏ	Ö	ő	Ö	l o	l ŏ	ŏ	0
Belgium	Ŏ	Ö	ő	5,103	5,125	lŏ	ŏ	10,228
Brazil	0	l ŏ l	ő	0	0	ŏ	ō	0
Canada	44,932	66	53,249	Ō	0	Ö	ō	98,247
Costa Rica	0	l ő	0	Ó	1 0	Ö	ŏ	0
Czechoslovakia	l o	0	ŏ	0	0	Ö	ō	0
Denmark	37,752	36,394	ő	34,201	18,853	20,862	ŏ	148,062
Dominican Republic	0	0	ő	0	, o	0	Ŏ	0
Finland	Ŏ	o	ŏ	0	0	ŏ	0	0
France	Ö	Ö	ő	14	0	ō	194	208
Germany	0	Ö	Ö	0	0	ō	0	0
Guatemala	0	ŏ	ő	0	o	Ö	Ö	0
Honduras	Ŏ	ŏ	o	0	0	ō	Ö	0
Hong Kong	Ì	o	Ö	0	0	Ŏ	ō	0
Hungary	1,102	o	0	82	527	l ŏ	ō	1,711
Ireland	4,425	ا ہ	ŏ	0	0	l ŏ	Ō	4,425
Israel	0	ا ه ا	o :	0	0	Ö	Ō	0
Italy	12,633	l o l	ō	0	0	l o	0	12,633
Japan	0	Ō	ŏ	0	0	Ō	0	0
Mexico	0	l ŏ l	ő	0	0	l ŏ	Ō	0
Netherlands	3	0	ő	2,100	89,287	9.592	0	100,982
New Zealand	Ö	Ö	ŏ	0	0	0	O	0
Poland	0	o l	ő	1,206	0	l o	0	1,206
Romania	Ō	Ö	ŏ	0	0	Ŏ	0	0
Sweden	Ö	ŏ	ŏ	0	0	Ŏ	0	0
Switzerland	Ö	ŏ	ŏ	0	0	ŏ	Ó	0
Uruguay	Ō	Ö	ŏ	0	0	0	0	0
Yugoslavia	149,070	ō	Ŏ	103,796	0	0	0	252,866
Total Pounds	249,917	36,460	53,249	146,502	113,792	30,454	194	630,568
Maria Ma					Grand '	Total for Por	K	3,484,215

Table 4-6 E Veal - Refused Entry 1991

Country of Origin	Manufacturing	Carcasses & Cuts	Misc. Fresh	Processed	Total
Argentina	0	0	0	0	0
Australia	7,569	140	0	0	7,709
Belgium	0	0	Ö	l o	0
Brazil	0	Ö	Ö	Ö	ll o
Canada	44,000	0	41,668	0	85,668
Costa Rica	0	Ō	0	0	0
Czechoslovakia	0	Ö	Ō	0	ŏ
Denmark	ĬŏI	ŏ	Ö	Ö	ll ő
Dominican Republic	o l	Ö	Ö	Ö	ll o
Finland	ŏ	ŏ	ŏ	Ö	ll ŏ
France	o l	Ö	Ŏ	ő	l ő
Germany	Ŏ	Ö	o	Ö	ll o
Guatemala	ŏ	ŏ	ŏ	ŏ	ŏ
Honduras	o l	Ŏ	Ŏ	ŏ	ll o
Hong Kong	ŏ	ő	Ŏ	ŏ	ll ő
Hungary	ŏ	ŏ	ŏ	Ŏ	ŏ
reland	ŏ	ő	Ŏ	Ŏ	Ö
Israel	ŏ	ŏ	ŏ	Ĭŏ	ll ŏ
Italy	ŏ	ő	ŏ	ŏ	ŏ
Japan	ŏ	ő	ŏ	Ö	ll ŏ
Mexico	ŏ	ŏ	ŏ	ŏ	ő
Netherlands	ŏ	ő	ŏ	Ŏ	ll ő
New Zealand	180	555	ő	ŏ	735
Poland	1 00	0	ŏ	ŏ	700
Romania	ŏ	Ö	l ő	Ö	Ö
Sweden	0	ő	Ö	ő	0
Switzerland	ŏ	ŏ	Ö	ő	0
Uruguay	ŏ	ŏ	Ö	0	ll ő
Yugoslavia	ŏ	ŏ	ŏ	ŏ	ő
Total Pounds	51,749	695	41,668	0	94,112

Table 4-6 F Mutton and Lamb; Horsemeat and Goat - Refused Entry 1991

		Mutton and Lamb					
Country of Origin	Manufacturing	Carcasses & Cuts	Edible Organs	Processed	Total	Horsemeat Carcasses	Goat Fresh
Argentina	0	0	0	0	0	0	0
Australia	91,430	731,522	27,944	0	850,896	0	498
Belgium	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0
Canada	0	Ó	O	0	0	0	0
Costa Rica	o	0	0	0	0	0	0
Czechoslovakia	0	Ö	l ŏ	0	o	0	0
Denmark	i o l	Ô	0	0	o	l o l	0
Dominican Republic	0	Ö	Ö	O	o	0	0
Finland	o l	Ö	Ö	0	0	0	0
France	ŏ	Ö	0	l 0	0	0	0
Germany	o l	ő	ŏ	0	o	0	Ō
Guatemála	o l	Ö	Ö	0	0	0	0
Honduras	ŏ	Ö	Ŏ	0	Ö	0	0
Hong Kong	ŏ	Ö	o	o	Ō	o l	0
Hungary	Ŏ	0	Ŏ	0	0	o l	0
Ilreland	ŏ	ŏ	ŏ	0	0	o	0
Israel	ŏ	Ö	o	l o	l ŏ	0	0
Italy	l ő l	ŏ	ŏ	0	Ö	l o l	0
Japan	ŏ	ő	ŏ	l ŏ	Ŏ	o	Ō
Mexico	Ö	Ö	Ö	0	o	0	0
Netherlands	l ŏ l	Õ	lŏ	l ŏ	o	o l	Ō
New Zealand	16,044	176,734	1,232	70	194,080	o l	1,807
Poland	10,044	0	0	0	0	l o l	0
Romania	ŏ	ŏ	ŏ	ŏ	ŏ	o	Ö
Sweden		ŏ	ŏ	ŏ	ŏ	Ö	Ö
Switzerland	l ő l	ŏ	ŏ	Ŏ	Ö	Ö	Ö
Uruguay		ŏ	ŏ	ŏ	ő	ŏ	Ö
Yugoslavia	ŏ	ő	ŏ	ő	Ö	o	0
Total Pounds	107,474	908,256	29,176	70	1,044,976	0	2,305

Table 4-6 G Poultry and Miscellaneous Combinations - Refused Entry 1991

Country of Origin	Fresh Poultry	Processed Poultry	Total Poultry	Miscellaneous Combinations*
Argentina	0	0	0	0
Australia	0	0	Ö	Ŏ
Belgium	0	Ö	Ö	Ö
Brazil	l o	0	0	Ö
Canada	Ö	822	822	42,000
Costa Rica	O	0	0	72,000
Czechoslovakia	Ö	ŏ	ŏ	ŏ
Denmark	Ö	Ö	O	ŏ
Dominican Republic	Ö	o l	Ö	ŏ
Finland	O	o l	0	Ö
France	0	328	328	31
Germany	0	0	0	21
Guatemala	0	o l	Ö	- 0
Honduras	0	ō	0	Ŏ
Hong Kong	O	Ö	O	Ŏ
Hungary	0	Ö	0	Ŏ
Ireland	l 0	Ō	0	o
Israel	0	727	727	Ō
Italy	0	0	0	o
Japan	0	0	0	ō
Mexico	0	0	0	o
Netherlands	l 0	0	0	0
New Zealand	0	0	0	l o
Poland	l o	Ō	0	O
Romania	0	Ō	0	ŏ
Sweden	O	0	0	684
Switzerland	0	0	0	0
Uruguay	Ö	0	0	Ŏ
Yugoslavia	0	Ō	ō	Ŏ
Total Pounds	0	1,877	1,877	42,736

^{*} Processed Varied Combination (more than one species).

Table 4-7

Table 4-7 shows the reasons for rejecting meat and poultry imports during reinspection and the number of pounds and lots rejected for each reason during 1991.

Reasons for Product Rejection

Total Product Refused Entry	Pounds	Lots	
Contamination	1,611,147	87	
Processing Defects	3,333,136	128	
Unsound Condition	1,500,418	68	
Violative Net Weight	299,392	26	
Pathological Defects	929,662	41	
Transportation Damage	1,488,048	4,875	
Labeling Defects	328,835	70	
Missing Shipping Marks	497,662	656	
Composition/Standard	135,035	8	
APHIS Veterinary Service Requirements	0	0	
Residues	55,834	7	
Miscellaneous	284,828	22	
Container Condition	433,123	43	
Total Refused Entry	10,897,120	6,031	







